


BRYN MAWR

THE UNDERGRADUATE COLLEGE
CATALOGUE AND CALENDAR 1996-97



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B R Y N M A W R

THE UNDERGRADUATE COLLEGE
CATALOGUE AND CALENDAR 1996-97

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CONTENTS

Academic Schedule 1996-97	6
Academic Schedule 1997-98	6
Bryn Mawr College Faculty and Staff	9
Introduction	22
Admission	25
Freshman Class	26
Transfer Students	28
Non-Degree Programs	30
Fees	32
Financial Aid and Scholarships	34
Academic and Residential Facilities	35
Student Life	41
Student Advising	41
The Honor Code	41
The Bryn Mawr-Haverford Career Development Office	42
Residence	43
Health Services	45
The Family Educational Rights and Privacy Act of 1974	47
Student Right to Know Act	48
Equality of Opportunity	48
The Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990	48
Geographical Distribution	49
Curriculum	52
Requirements for the A.B. Degree	52
Academic Regulations	57
Curricular Opportunities	65
Departmental and Interdepartmental Majors	72
Anthropology	72
Astronomy	77
Biology	79
Chemistry	86
Classical and Near Eastern Archaeology	90
Classical Languages	94
Classical Studies	95
Comparative Literature	97
East Asian Studies	100
Chinese	107
Japanese	108
Economics	108
English	114
Fine Arts	124
French and French Studies	128
Geology	135
German and German Studies	139
Greek	143
Growth and Structure of Cities	145
History	150
History of Art	157
Italian	163
Latin	166
Mathematics	168

Bryn Mawr College

Music	173
Philosophy	177
Physics	183
Political Science	189
Psychology	195
Religion	201
Romance Languages	208
Russian	209
Sociology	213
Spanish	218
Fields of Concentration and Additional Programs	225
Africana Studies	225
Arts Program	228
Computer Science	234
Education	239
Environmental Sciences	242
Feminist and Gender Studies	245
General Studies	247
Hebrew and Judaic Studies	248
Hispanic and Hispanic-American Studies	249
International Economic Relations	250
Neural and Behavioral Sciences	251
Peace and Conflict Studies	253
Physical Education and Athletics	254
Scholarship Funds and Prizes	256
Alumnae Representatives	284
Index	290

Visitors to the College are welcome and, when the College is in session, student guides are available to show visitors the campus. Appointments for interviews and for campus tours should be made in advance by writing to the Office of Admissions or by telephoning (610) 526-5152. The Office of Admissions is open Monday through Friday from nine until five and, during the fall, on Saturdays from nine until one.

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The Alumnae Association

Regional scholarships and loan funds

ACADEMIC SCHEDULE 1996-97

1996

First Semester

September 2	Classes begin
October 11	Fall vacation begins after last class
October 16	Fall vacation ends at 8 a.m.
November 27	Thanksgiving vacation begins after last class
December 2	Thanksgiving vacation ends at 8 a.m.
December 10	Last day of classes
December 11-12	Review period
December 13-20	Examination period

1997

Second Semester

January 20	Classes begin
March 7	Spring vacation begins after last class
March 17	Spring vacation ends at 8 a.m.
May 2	Last day of classes
May 3-6	Review period
May 7-16	Examination period
May 18	Commencement

ACADEMIC SCHEDULE 1997-98

1997

First Semester

September 1	Classes begin
October 10	Fall vacation begins after last class
October 15	Fall vacation ends at 8 a.m.
November 26	Thanksgiving vacation begins after last class
December 1	Thanksgiving vacation ends at 8 a.m.
December 9	Last day of classes
December 10-11	Review period
December 12-19	Examination period

1998

Second Semester

January 19	Classes begin
March 6	Spring vacation begins after last class
March 16	Spring vacation ends at 8 a.m.
May 1	Last day of classes
May 2-5	Review period
May 6-15	Examination period
May 17	Commencement

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Associate Dean of the Undergraduate College and Lecturer in Psychology
Ava Blitz, M.F.A. (University of Georgia),
Associate Lecturer in Fine Arts
Marc N. Boots-Ebenfield, Ph.D. (Bryn Mawr College),
Lecturer in Russian
Madeline Cantor, M.F.A. (University of Michigan),
Associate Lecturer in the Arts
Kimberly Cassidy, Ph.D. (University of Pennsylvania),
Lecturer in Psychology
Lisa Chirlian, Ph.D. (Princeton University),
Lecturer in Chemistry
Jeffrey Cohen, Ph.D. (University of Pennsylvania),
Lecturer in Growth and Structure of Cities
Alison Cook-Sather, M.A. (Stanford University),
Director of the Bryn Mawr-Haverford Teacher Education Program
and Lecturer in Education
Roseline Cousin, M.A. (Bryn Mawr College),
Lecturer in French
Anne F. Dalke, Ph.D. (University of Pennsylvania),
Senior Lecturer in English
Mary M. Doi, J.D. (Harvard University), *Lecturer in Anthropology*
Janet Doner, Ph.D. (University of Pennsylvania),
Senior Lecturer in French
Helene Elting, Ph.D. (University of Pennsylvania),
Lecturer in English
Mary M. Eno, Ph.D. (University of Pennsylvania),
Lecturer in Psychology
Steve Ferzacca, Ph.D. (University of Wisconsin, Madison),
Lecturer in Anthropology

Faculty

- Barri Gold, Ph.D. (University of Chicago),
Lecturer in English
- Katherine Gordon-Clark, Ph.D. (Bryn Mawr College),
Lecturer in Psychology
- Raquel A. Green, Ph.D. (Bryn Mawr College),
Lecturer in Spanish
- Richard Hardack, Ph.D. (University of California, Berkeley),
Lecturer in English
- Linda Caruso Haviland, ED.D. (Temple University),
Director of Dance and Senior Lecturer in the Arts
- Margaret Holley, Ph.D. (Bryn Mawr College), *Director of Creative Writing and Lecturer in the Arts*
- Sharon A. Holt, Ph.D. (University of Pennsylvania),
Lecturer in Growth and Structure of Cities
- Michael Isador, A.B. (Conservatoire Nationale, Paris),
Alice Carter Dickerman Director of the Arts and Lecturer in the Arts
- Hiroshi Iwasaki, M.F.A. (Boston University),
Associate Lecturer and Designer/Technical Director of Theater
- Nancy J. Kirby, M.S.S. (Bryn Mawr College),
Assistant Dean of the Graduate School of Social Work and Social Research and Lecturer in Social Work and Social Research
- Theresa J. Ko, M.A. (Seton Hall University),
Senior Lecturer and Director of Chinese Language Program
- Mark Lord, M.F.A. (Yale University), *Director of Theater and Senior Lecturer in the Arts on the Teresa Helburn Lectureship*
- Barbara Lorry, Ph.D. (Bryn Mawr College),
Lecturer in Psychology
- Marcia L. Martin, Ph.D. (Bryn Mawr College), *Lecturer in Social Work and Social Research and Field Instruction Coordinator*
- Ruth W. Mayden, M.S.S. (Bryn Mawr College),
Dean of the Graduate School of Social Work and Social Research and Lecturer in Social Work and Social Research
- Janet M. Monge, Ph.D. (University of Pennsylvania),
Lecturer in Anthropology
- David Rabeeya, Ph.D. (Dropsie College),
Lecturer in Judaic Studies
- Carol Roberts, Ph.D. (Bryn Mawr College),
Lecturer in Psychology
- Lisa Saltzman, Ph.D. (Harvard University),
Lecturer in History of Art
- Hollis Scarborough, Ph.D. (New York University),
Lecturer in Psychology
- Regene Silver, Ph.D. (University of Pennsylvania),
Lecturer in English
- Rachel Simon, M.F.A. (Sarah Lawrence College),
Lecturer in the Arts and Creative Writing
- Suzanne Spain, Ph.D. (New York University),
Associate Provost and Lecturer in History of Art
- Daniela Holt Voith, M.A. (Yale University),
Lecturer in the Growth and Structure of Cities

INSTRUCTORS

- Quinn Eli, M.A. (Temple University),
Instructor in English and Creative Writing in the Arts
Peter Kasius, M.A. (Princeton University),
Instructor in Mathematics
Peter Koelle, M.A. (University of Pennsylvania),
Instructor in Spanish
Eva Kuttentberg, M.A. (New York University),
Instructor in German
Patricia A. Suyemoto, M.A. (Stanford University),
Instructor in the Bryn Mawr-Haverford Teacher Education Program
Chiang T'zu, M.A. (Tunghai University, Taiwan),
Instructor in Chinese

LABORATORY COORDINATORS AND LECTURERS

- Mary Louise Cookson, M.A. (Villanova University),
Senior Program Coordinator and Instructor in Mathematics
Stephen Gardiner, Ph.D. (University of North Carolina),
Senior Laboratory Lecturer in Biology
Krynn DeArman Lukacs, Ph.D. (University of North Carolina),
Senior Laboratory Lecturer in Chemistry
Maryellen Nerz-Stormes, Ph.D. (University of Pennsylvania),
Laboratory Lecturer in Chemistry
Mary Scott, M.A. (Bryn Mawr College),
Laboratory Instructor in Physics
Sherry L. Serdikoff, Ph.D. (West Virginia University),
Laboratory Lecturer in Psychology

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The Constance A. Jones Director of Libraries*
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Linda Bills, M.S. in L.I.S. (Case Western Reserve University), M.A.
(University of Hawaii), *Tri-College Systems Librarian*
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Head, Serials Division
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*The Constance and Adelaide Jones Curator and Registrar of the
College's Collections*
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Cataloging Division
Leo M. Dolenski, M.A. (Catholic University of America), M.S. in L.S.
(Drexel University), *Manuscripts and Archives Librarian*
John Dooley, M.L.S. (McGill University),
Bibliographer
Terri Freedman, M.L.S. (University of Toronto), *Science Librarian, The
Lois and Reginald Collier Science Library*
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Assistant Director for Public Services
Laura Ann Guelle, M.S. in L.S. and I.S. (Drexel University), *Cataloger*
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Slide Cataloger
Mary S. Leahy, M.A., M.A. (Bryn Mawr College),
The Seymour Adelman Rare Book Librarian

Administration

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Head, Art and Archaeology Library
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Reference Librarian
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Scott H. Silverman, M.A. (Bryn Mawr College), M.S. in L.S. (Drexel University), *Technical Services*
Lorette Treese, M.A. (Villanova University),
The Frances T. Bourne Archivist for the College
Dora Wong, Ph.D. (University of Massachusetts), M.S. in L.S. (Drexel University), *Head, Lois and Reginald Collier Science Library*

OFFICE OF THE UNDERGRADUATE DEAN

- Karen Tidmarsh, Ph.D. (University of Virginia),
Dean of the Undergraduate College and Associate Professor of English
Jeanne L. Simon Angell, M.S.S. (Bryn Mawr College),
Accessibility Coordinator
Judith Weinstein Balthazar, Ph.D. (University of Pennsylvania),
Assistant Dean
Erika Rossman Behrend, Ph.D. (University of Pennsylvania),
Associate Dean and Lecturer in Psychology
Sherry Y. W. Butler, B.A. (Cheyney University of Pennsylvania),
Student Activities Coordinator and Adviser for Community Service
Lucy Lloyd Darlington, M.S.S. (Bryn Mawr College),
Drug and Alcohol Program Consultant and Peer Education Coordinator
Jodi Bergman Domskey, M.Ed. (Bowling Green State University),
Assistant Dean and Premedical Adviser
Marie L. Flamme, M.P.H. (University of Hawaii),
International Student Adviser
Jennifer Goldberg, M.Ed. (Harvard University),
Director of Residential Life
Charles Heyduk, Ph.D. (Bryn Mawr College),
Assistant Dean
Rona Pietrzak, J.D. (University of Pittsburgh),
Assistant Dean for McBride Advising

Bryn Mawr College

HEALTH SERVICES

- Kay Kerr, M.D. (Medical College of Pennsylvania),
Medical Director
Eileen F. Bazelon, M.D. (University of Pennsylvania),
Consulting Psychiatrist
Deidre Laveran, M.S.S. (Bryn Mawr College), *Counselor and
Administrator of Counseling Services*
Jean-Marie P. Barch, Ph.D. (Bryn Mawr College), *Counselor*
Katherine Donner, M.S.W. (Temple University), *Counselor*
Mary Anne M. McNally, M.Ed. (University of Delaware), *Counselor*
Sally Heiman, C.N.M. (University of Pennsylvania), *Nurse Practitioner*
Jackie Morril, C.N.M. (University of Pennsylvania), *Nurse Practitioner*
Barbara Gottschalk, C.N.M. (University of Pennsylvania), *Nurse
Practitioner and Coordinator of Gynecological Services*
Jackee Ramsey, R.N. (University of Maryland), *Head Nurse*

PHYSICAL EDUCATION

- Jenepher Shillingford, M.Ed. (Temple University),
Director and Lecturer in Physical Education
Lisa Boyle, B.S. (West Chester State University),
Associate Director and Lecturer in Physical Education
Barbara Bolich, B.S. (Temple University),
Lecturer in Physical Education
Jenn Davidson, B.A. (Lock Haven University), *Instructor in Physical
Education*
Linda Caruso Haviland, Ph.D. (Temple University), *Director of Dance
and Associate Instructor of Physical Education*
Martha McMahan, M.S. (Eastern Illinois University),
Lecturer in Physical Education and Athletic Trainer
Kathleen Miller, B.A. (Temple University),
Instructor in Physical Education
Ray Tharan, B.S. (Temple University), *Instructor in Physical Education*

CAREER DEVELOPMENT OFFICE

- Liza Jane Bernard, M.Ed. (College of William and Mary), *Director*
Matthew Jonathan Brink, M.S. Counseling and Human Relations
(Villanova University)
Associate Director
Kathleen M. Lis, M.Ed. (Delaware University), *Career Counselor/
Librarian*
Linda Penwell, B.A. (Bryn Mawr College) *Recruiting Coordinator*

Administration

BRYN MAWR COLLEGE ADMINISTRATIVE OFFICERS

- Nell Booth, M.A. (University of Pennsylvania),
Assistant to the President
- R. Scott Cowdrey, M.S. (Montana State University),
Director of Computing Services
- Gail T. Finan, B.S. (Cornell University),
Acting Director of Facilities Services and Director of Administrative Services and Operations
- Marilyn Motto Henkelman, M.Ed. (Erikson Institute for Early Education), *Director of the Phoebe Anna Thorne School*
- Samuel B. Magdovitz, J.D. (Yale University),
College Counsel
- Julie E. Painter, A.B. (Bryn Mawr College),
Registrar
- Fred V. Rowland, B.A. (University of Virginia),
Bookshop Manager
- Nona C. Smith, B.A. (West Chester University),
Director of Faculty Grants
- Karen Snyder, B.A. (Rutgers University),
Director of Personnel Services
- Suzanne Spain, Ph.D. (New York University),
Associate Provost and Lecturer in History of Art
- Varney Truscott, M.A. (Bryn Mawr College),
Assistant to the President
- Paul Vassallo, B.S. (Villanova University),
Director of Purchasing
- Maria Colella Wiemken, M.A. (Bryn Mawr College),
Comptroller
- Lisa L. Zernicke, B.B.A. (University of Wisconsin, Milwaukee),
Director of Conferences and Events

INTRODUCTION

Bryn Mawr is a liberal arts college in both the modern and traditional senses. Its curriculum is modern in offering a full range of subjects in the arts, sciences, and social sciences, but the College is also traditional in its commitment to the original medieval sense of the phrase "liberal arts." Then, as now, these were the studies of the free person—"free" not only to undertake such a broad education, without the necessity to specialize, but also free to question or advocate any idea without fear of reprisal. While both of these freedoms come from without, Bryn Mawr believes that such an education ultimately creates an even greater freedom within the individual. This is the freedom that comes from an education that leads one out of the narrowness and prejudices of one's own experience and toward a fuller awareness of oneself and the world.

Bryn Mawr College is convinced that intellectual enrichment and discipline provide a sound foundation for living. It believes in the rights of the individual and regards the college community as a proving ground for the freedom of individuals to think and act as intelligent and responsible members of a democratic society.

THE HISTORY OF BRYN MAWR

Bryn Mawr College was founded in 1885 by Dr. Joseph Taylor, a New Jersey physician and member of the Society of Friends, who decided to found a college for the education of young Quaker women. He chose the site and supervised the building of Taylor Hall, but by 1893 his trustees had broadened Taylor's mission by deciding that Bryn Mawr would be non-denominational—although committed to the belief in freedom of conscience. When Bryn Mawr opened, it offered the A.B., M.A., and Ph.D. degrees, and was thus the first women's college in the country to develop graduate instruction leading to the doctorate for women. It remains today the only predominantly women's college with extensive graduate programs.

The first president of Bryn Mawr was James E. Rhoads (1885–1894), another physician and one of the early planners of the College. It was M. Carey Thomas, the first dean and second president (1894–1922), however, who gave Bryn Mawr its special identity as a college determined to prove that women could successfully complete a curriculum as rigorous as any offered to men in the best universities. When she was only thirteen she wrote in her diary, "How unjust—how narrow-minded—how utterly incomprehensible to deny that women ought to be educated and worse than all to deny that they have equal powers of mind." Her life may be seen as a concentrated experiment to prove that it was not so.

Miss Thomas was succeeded by Marion Edwards Park (1922–1942), a distinguished classicist. When she became president the battle for recognition of women's ability to learn was essentially won, but it fell to President Park to provide a system for democratic governance in the wake of her charismatic but autocratic predecessor. It was President Park who guided the College through the depression without loss of standards or integrity.

From 1942 to 1970 Katharine Elizabeth McBride, a noted child psychologist and administrator, presided over the College in a time of

great change and tremendous growth. The size of the student body increased from 500 in 1940 to 750 in 1970 and — although Bryn Mawr had never had quotas and had always offered scholarships — after World War II the student body represented greater social, ethnic, and economic diversity. During the presidency of Harris L. Wofford (1970–1978), our commitments to academic cooperation with Haverford and to international education were strengthened, and large numbers of men and foreign students added still greater diversity and interest to campus life. The sixth President is Mary Patterson McPherson (1978–), a philosopher who is an outspoken champion of equal access to education and equal rights for women.

THE COLLEGE AS COMMUNITY

Believing that a small college provides the most favorable opportunity for the students to participate in their own education, Bryn Mawr limits the number of undergraduates. And since diversity in background and training serves not only to stimulate discussion but also to develop an intelligent understanding of such diversity, the undergraduate enrollment and curriculum are dedicated to a respect for and understanding of cultural and social diversity. The student body is composed of individuals from all parts of the United States as well as many foreign countries and from all sectors of American society, with a special concern for the inclusion of historically disadvantaged minorities.

The resources of Bryn Mawr as a small residential college are augmented by its participation at the undergraduate level with Haverford College, Swarthmore College, and the University of Pennsylvania in an arrangement which coordinates the facilities of the four institutions while preserving the individual qualities and autonomy of each. Students may take courses at the other colleges, with credit and without additional fees. Bryn Mawr also has a limited exchange program with Villanova University. Students at Bryn Mawr and Haverford may also major at either college.

The cooperative relationship between Bryn Mawr and Haverford is particularly close since the colleges are only about a mile apart and, naturally, extends beyond the classroom. Collections in the two libraries are cross listed, and students may study in either library. Student organizations on the two campuses work closely together in matters concerned with student government and in a whole range of activities. Cooperation in living arrangements was initiated in 1969–70, and several residence halls on the two campuses are assigned to students of both colleges.

Bryn Mawr itself sponsors a broad cultural program which supplements the curriculum and enriches its community life. Various lectureships bring scholars and other leaders in world affairs to the campus not only for public lectures but also for classes and conferences with the students. Such opportunities are provided by the Mary Flexner Lectures in the humanities and by the Anna Howard Shaw Lectures in the social sciences, the visiting professors on the Katharine E. McBride Fund for faculty appointments, and by various individual lecturers in many of the departments of the College. The Arts Program at Bryn Mawr supports and coordinates the arts curriculum and a variety of extra-curricular activities in creative writing, dance, fine arts, music, and theater. A regular schedule of concerts and productions directed by the arts faculty

at Bryn Mawr and Haverford Colleges, together with performances by The Theater Company, Dance Club, and other student-run groups, is augmented and enhanced by readings, exhibitions, performances, and workshops given by visiting artists.

Student organizations have complete responsibility for the many aspects of student activity, and student representatives join with members of the faculty and administration in making and carrying out plans for the College community as a whole. The Student Self-Government Association, to which every student belongs, provides a framework in which individuals and smaller groups function. The association both legislates and mediates in matters of social and personal conduct. Through their Self-Government Association, the students share with the faculty the responsibility for the administration of the Academic Honor System. One of the most active branches of the Self-Government Association is the Student Curriculum Committee which, with the Faculty Curriculum Committee, originally worked out the College's system of self-scheduled examinations. The joint Student-Faculty Committee meets regularly to discuss curricular issues and to approve new courses and programs. The Self-Government Association also coordinates the activities of many special interest clubs, open to all students; it serves as the liaison between students and College officers, faculty, and alumnae. The Athletic Association also provides opportunities for all kinds of activities, including intramural and varsity contests. Both the Bryn Mawr and Haverford College newspapers welcome the participation of students interested in reporting and editing.

Students participate actively on many of the most important academic and administrative committees of the College, as they do on the Curriculum Committee. Undergraduates elect three rising seniors to serve with members of the faculty on the College Admissions Committee. Along with alumnae and faculty, three students participate in the policy discussions of the Undergraduate Scholarship Committee. Two undergraduates meet with the Board of Trustees, present regular reports to the full board, and work with the board's committees. Two undergraduates are also elected to attend meetings of the faculty. At the meetings of both the board and the faculty, student members may join in discussion but do not vote.

The International Students Association, representing more than 140 undergraduate and graduate students at the College from more than fifty different countries, enriches the life of Bryn Mawr through social and cultural events. The Sisterhood works to address the concerns of African American students, to foster their equal participation in all aspects of College life, and to support Perry House, the African American cultural center, which sponsors cultural programs open to the College community and provides residence space for a few students. Other student organizations, such as the Asian Students Association, the Hispanic Students Association, and the South Asian Women, provide forums for the members to address their common concerns and a basis from which they participate in other activities of the College, making many unique and valuable contributions. An active Women's Center has been working for several years with the Faculty Committee on Feminism and Gender Studies on the establishment of appropriate courses on women and on lectures and other extra-curricular programs focused on women and feminism. The Bisexual, Gay, and Lesbian Alliance coordinates activities and events which address the needs and interests of students involved in issues of sexual identity and difference.

The Minority Coalition, an organization representing all of the minority student organizations, enables students of color to work together in developing a coordinated plan to increase the number of students and faculty of color and to develop curricular offerings and extra-curricular programs dealing with United States minority groups and with non-Western peoples and cultures.

Students who wish to volunteer their services outside the College find many opportunities to do so through the Eighth Dimension program coordinated by Mary Louise Allen at Haverford College. One such opportunity is Kid's Connection, a tutoring service for inner-city children developed and run by Bryn Mawr students.

Through their interest and participation in these many aspects of the College community the students exemplify the concern of Bryn Mawr's founders for intellectual development in a context of social commitment.

ADMISSION

Bryn Mawr College is interested in candidates of character and ability who want a liberal arts education and are prepared for college work by a sound education in school. The College has found highly successful candidates among students of varied interests and talents from a wide range of schools and regions in the United States and abroad. In its consideration of candidates, the College looks for evidence of ability in the student's high school record, her rank in class, and her College Board tests; it asks her high school adviser and several teachers for an estimate of her character, maturity, and readiness for college.

PROGRAM OF SECONDARY SCHOOL STUDIES

Candidates are expected to complete a four-year secondary school course. The program of studies providing the best background for college work includes English, languages, and mathematics carried through most of the school years and, in addition, history and a laboratory science. A school program giving good preparation for study at Bryn Mawr would be as follows: English grammar, composition, and literature through four years; at least three years of mathematics, with emphasis on basic algebraic, geometric, and trigonometric concepts and deductive reasoning; three years of one modern or ancient language, or a good foundation in two languages; some work in history; and at least one course in a laboratory science, preferably biology, chemistry, or physics. Elective subjects might be offered in, for example, art, music, or computing to make up the total of sixteen or more credits recommended for admission to the College.

Since school curricula vary widely, the College is fully aware that many applicants for admission will offer programs that differ from the one described above. The College is glad to consider such applications provided students maintained good records and continuity in the study of basic subjects.

FRESHMAN CLASS

Application to the freshman class may be made through one of three plans: Regular Admission, Fall Early Decision, or Winter Early Decision. Applicants follow the same procedures, submit the same supporting materials, and are evaluated by the same criteria under each plan.

The Regular Admission plan is designed for those candidates who wish to keep open several different options for their undergraduate education throughout the admissions process. Applications under this plan are accepted anytime before the January 15 deadline.

The two Early Decision plans are designed for candidates who have thoroughly and thoughtfully investigated Bryn Mawr and other colleges and found Bryn Mawr to be their unequivocal first choice. The Winter Early Decision plan differs from the Fall Early Decision plan only in recognizing that some candidates may arrive at a final choice of college later than others. Early Decision candidates under either plan may file regular applications at other colleges with the understanding that these applications will be withdrawn upon admission to Bryn Mawr; one benefit, however, of the Early Decision plan is the reduction of cost, effort, and anxiety inherent in multiple application procedures. Early Decision candidates who apply for financial aid will receive a financial aid decision at the same time as the decision about admission. Any Early Decision candidate who is not admitted through either fall or winter plans and whose application is deferred to the Regular Admission plan will be reconsidered without prejudice along with the regular admission candidates in the spring.

Timetables for the three plans are:

Fall Early Decision

Closing date for applications
and all supporting material November 15
Notification of candidates by December 15

Winter Early Decision

Closing date for applications
and all supporting materials January 1
Notification of candidates by January 31

Regular Admission

Closing date for applications
and all supporting materials January 15
Notification of candidates by mid-April

Application forms may be obtained from the Director of Admissions, 101 N. Merion Avenue, Bryn Mawr College, Bryn Mawr, Pennsylvania 19010-2899. A fee of \$50 must accompany each application and is not refundable. Applicants who file Form 1 before December 1 may take advantage of a reduced application fee of \$40.

ENTRANCE TESTS

The Scholastic Aptitude Test (SATI) and three SATII tests (formerly Achievement Tests) of the College Entrance Examination Board are required of all candidates and should be taken as early as possible, but no later than January. If possible, SAT II tests should be taken in current subjects. Students should offer three of the one-hour tests: one in English and two others. The College recommends but does not require that one of the three tests be taken in a foreign language, since a (recentered) score of 690 or above satisfies part of an A.B. degree requirement (see page 28 for details on language exemption). No special preparation, other than work well-done in a good school, is required for successful performance on these tests.

Candidates are responsible for registering with the College Entrance Examination Board for the tests. Information about the tests, test centers, fees, and dates may be obtained by writing to College Board, P.O. Box 592, Princeton, New Jersey 08540.

Students who are unable to take the College Board tests may submit the ACT of the American College Testing Program. All tests must be completed by the January test date.

INTERVIEWS

An interview either at the College or with an alumna area representative is strongly recommended for all candidates. Interviews should be completed by the deadline of the plan under which the candidate is applying. Appointments for interviews and campus tours should be made in advance by writing or telephoning the Office of Admissions (610-526-5152). The Office of Admissions is open from nine to five on weekdays and, from September to January, on Saturdays from nine to one. A student who is unable to visit the College may write to the director of admissions for the name and address of an alumna representative in her area.

EARLY ADMISSION

Each year a few outstanding students enter the College after the junior year of high school. Students who wish to apply for Early Admission should plan to complete a senior English course before entrance to college and should write to the director of admissions about application procedures.

DEFERRED ENTRANCE

A student admitted to the College may defer entrance to the freshman class for one year provided that she writes to the director of admissions requesting deferred entrance by May 1, the Candidates' Reply Date.

ADVANCED PLACEMENT AND CREDIT

Students who have carried advanced work in school and who have honor grades (5 in Art History, Biology, English, French, Government and Politics, and History, 4 and 5 in most other subjects) on the Advanced Placement Tests of the College Board may, after consultation with the dean and the departments concerned, be admitted to one or more advanced courses in the freshman year. Bryn Mawr accepts advanced placement tests with honor grades in the relevant subjects as exempting the student from College requirements for the A.B. degree. With the approval of the dean and the departments concerned, one or more advanced placement tests with honor grades may be presented for credit. Students receiving six or more units of credit may apply for advanced standing. The advanced placement tests are given at College Board centers in May.

Students who present the full International Baccalaureate with a score of 30 or better and honor scores in three higher level exams normally receive one year's credit; those with a score of 35 or better, but with honor scores in fewer than three higher level exams, receive two units of credit for each honor score in higher level exams plus two for the exam as a whole; those with a score of less than 30 receive two units of credit for each honor score in a higher level exam. Depending upon their grades, students who present Advanced Levels on the General Certificate of Education may be given two units of credit for each subject. Up to a year's credit is often given for the French Baccalaureate, the German Abitur, and for similar diplomas, depending upon the quality of the examination results. Students may also consult the dean or the director of admissions about the advisability of taking placement tests given by the College during Customs, Bryn Mawr's freshmen orientation.

TRANSFER STUDENTS

Each year a few students are admitted on transfer to the sophomore and junior classes. Successful transfer candidates have done excellent work at other colleges and universities and present strong high school records which compare favorably with those of students entering Bryn Mawr as freshmen. Students who have failed to meet the prescribed standards of academic work or who have been put on probation, suspended, or excluded from other colleges and universities will under no circumstances be admitted.

Transfer candidates should file applications as early as possible and by March 15 for entrance in September, or by November 1 for the second semester of the year of entrance. Application forms and instructions may be requested from the director of admissions.

Transfer candidates are asked to submit official test reports from the College Board of the Scholastic Aptitude and Achievement Tests taken in high school. Those who have not previously taken these tests are required to take only the Scholastic Aptitude Test. Test registration information may be obtained from the College Board, Box 592, Princeton, New Jersey 08540.

To qualify for the A.B. degree, students ordinarily should have completed a minimum of three years of full-time study at Bryn Mawr.

Admission

Students transferring as juniors may be exempt from this requirement by approval of the dean, the major department chairman, and the Undergraduate Curriculum Committee.

FOREIGN STUDENTS

Bryn Mawr welcomes applications from foreign citizens who have outstanding secondary school records and who meet university entrance requirements in their native countries. Application forms and instructions are available from the director of admissions. Applications from foreign students should be filed early in the year preceding entrance and must be completed by January 15. The application fee may be waived upon request.

Foreign student applicants are required to take the Scholastic Aptitude Test of the College Board. Achievement tests are recommended but not required. Test registration information may be obtained from the College Board, ATP, Post Office Box 6200, Princeton, New Jersey 08541-6200, U.S.A. Registration arrangements for students taking the tests abroad should be made at least two months prior to the scheduled testing date.

Foreign student applicants whose native language is not English must present credentials attesting to their proficiency in English. The Test of English as a Foreign Language (TOEFL) is required for all non-native speakers of English unless they have, for several years, studied in an institution in which English is the sole medium of instruction. A score of 600 is considered to be adequate. TOEFL registration information can be obtained by writing to TOEFL, Post Office Box 6151, Princeton, New Jersey 08541-6151, U.S.A.

COMBINED BACHELOR OF ARTS AND MASTER OF ARTS DEGREE

Bryn Mawr students who are exceptionally qualified may, while undergraduates, undertake graduate work leading to the degree of Master of Arts. Such students should file individual plans of study at the end of the sophomore year for approval by the department chairman, the dean of the Undergraduate College, the Undergraduate Curriculum Committee, the dean of the Graduate School of Arts and Sciences, and the Graduate Council.

WITHDRAWAL AND READMISSION

A student who has withdrawn from the College is not automatically readmitted. She must request readmission and should consult her dean and the director of admissions concerning the procedure to be followed. Evidence of the student's ability to resume work at Bryn Mawr may be requested. Applications for readmission are reviewed twice during the year, in late February and in June. Students who file an application by February 1 are notified of the committee's decision in early March and may then enter the room draw by proxy. Those who file by June 1 are notified late in June.

SPECIAL ACADEMIC PROGRAMS

Bryn Mawr offers a number of programs for non-matriculated students. Information, application forms, and instructions for applying to the following programs may be addressed by program name to Canwyll House, Bryn Mawr College, 101 N. Merion Avenue, Bryn Mawr, Pennsylvania 19010-2899.

Continuing Education Students

Highly qualified women and men and gifted high school students who do not wish to undertake a full college program leading to a degree may apply for admission as continuing education students to take courses on a fee basis prorated according to the tuition of the Undergraduate College, space and resources permitting. Women and men sixty years of age and older qualify to take courses at one-half the special student tuition.

Katharine E. McBride Scholars Program

The Katharine E. McBride Scholars Program serves women beyond the traditional college entry age who wish to earn an undergraduate degree at Bryn Mawr. The program admits women who have demonstrated talent, achievement, and intelligence in various areas, including paid employment, volunteer activities, home, or formal study. Students entering the program in the fall of 1996 and thereafter will be admitted directly as matriculated students.

Once admitted to the undergraduate college, McBride scholars are subject to the residency rule, which requires that a student take a minimum of twenty-four course units while enrolled in the undergraduate college. Exceptions will be made for students who transfer more than eight units from previous work. Such students may transfer up to sixteen units and must then take at least sixteen at Bryn Mawr. McBride scholars may study on a part-time or full-time basis. Detailed information about the McBride Scholars Program is available from the Bryn Mawr College Admissions Office.

Post-Baccalaureate Premedical Program

Women and men who hold bachelor's degrees but need additional undergraduate training before making initial application to schools of medicine, dentistry, and veterinary medicine may apply as post-baccalaureate students. The Post-Bacc program stresses intensive work in the sciences. It is designed primarily for students who are changing fields and who have not previously completed the premedical requirements. Applications are considered for admission in the summer or fall only. Applications should be submitted as early as possible and decisions are made on a rolling admissions basis. The Post-Bacc program is highly selective.

The Consortial Programs

Students applying for the Post-Baccalaureate Premedical Program may elect to apply for provisional acceptance into one of the following schools of medicine: Brown University Program in Medicine, Dartmouth Medical School, Hahnemann University School of Medicine, Jefferson Medical College, the Medical College of Pennsylvania, the Temple University School of Medicine, the University of Rochester School of Medicine, and SUNY- Sunnybrook. Students provisionally accepted by one of these schools are admitted to the first year of medical school following satisfactory completion of the post-baccalaureate course of study.

Predental students applying for the Post-Baccalaureate Program may elect to apply for provisional acceptance into the University of Pennsylvania School of Dental Medicine. If provisionally accepted by the University of Pennsylvania School of Dental Medicine, the student is eligible to begin dental studies immediately following successful completion of the post-baccalaureate course of study.

School Psychology Certification Program

This program is designed to enable professionals in the fields of education and mental health to obtain the training requisite for Pennsylvania state certification as a school psychologist. Students who have a master's degree in a field related to school psychology, such as counseling, social work, learning disabilities, psychology of reading, or special education, are eligible to apply. If accepted to the School Psychology Certification Program, students generally use previous master's course work to fulfill some of the program's competency requirements. Students may attend on a part-time basis.

Summer Courses

During Summer Sessions I and II, qualified women and men, including high school students, may take courses in the sciences, mathematics, and intensive language study. Students may use these courses to fulfill undergraduate requirements or prepare for graduate study. The current summer session calendar should be consulted for dates and course descriptions. Each course carries full academic credit.

Alumnae/i

Under certain circumstances, Bryn Mawr alumnae/i who have received one or more degrees from Bryn Mawr College (A.B., M.A., M.S.S., M.L.S.P., Ph.D.) are entitled to take courses in the Undergraduate College at one-half the normal tuition. Admission to all courses must follow approved admissions procedures. Courses are open on a space-available basis.

FEES

TUITION

The tuition fee in 1996-97 for all undergraduate students, resident and non-resident, is \$20,210 a year.

Summary of Fees and Expenses for 1996-97

Tuition	\$20,210
Residence (room and board)	7,370
College fee	400

Other Fees

Laboratory fee (per lab per semester)	\$ 35
Self-Government Association fee	220
Continuing enrollment fee (per semester)	250

Faced with rising costs affecting all parts of higher education, the College has had to raise tuition each of the last several years and further increases may be expected.

PROCEDURES FOR SECURING A REFUND

Written notice of intention to withdraw must be submitted to the student's dean. The date on which written notice is received (or the date on which the student signs a notice of withdrawal) is the official date of withdrawal. All students receiving financial aid must consult with the Financial Aid Office, including students who have received federally insured loans, such as loans guaranteed by state agencies and by the federal government to meet educational expenses for the current academic year.

Bryn Mawr College's refund policy is in compliance with federal regulations. Students who are attending the school for the first time whose withdrawal date is on or before the 60% point in the period of enrollment will be subject to the Pro Rata Refund policy for Title IV aid recipients as defined by federal regulations 668.22(b)(1)(ii). Students who do not qualify for the Pro Rata Refund will have reimbursements made as follows, according to federal regulations:

1. If the student withdraws before or on the first day of classes for the period of enrollment for which she was charged, the College will refund 100% of the student's institutional charges less an administrative fee of \$100.
2. If a student withdraws at anytime after the first day of classes for the period of enrollment for which she was charged, up to and including the end of the first 10% (in time) of that period of enrollment, the College will refund 90% of the student's institutional charges, less the administrative fee.
3. If a student withdraws at any time after the end of the first 10% (in time) of that period of enrollment for which she was charged, up to and

Fees and Financial Aid

including the end of the first 25% (in time) of that period of enrollment, the College will refund 50% of the student's institutional charges, less the administrative fee.

4. If a student withdraws at any time after the end of the first 25% (in time) of the period of the enrollment for which she was charged, up to and including the end of the first 50% (in time) of that period of enrollment, the College will refund 25% of the student's institutional charge, less the administrative fee.

Details on the federal calculation of refunds can be obtained from the Associate Comptroller.

SCHEDULE OF PAYMENTS

By registering for courses, students accept responsibility for the charges of the entire academic year, regardless of the method of payment. The College bills for each semester separately. The bill for the fall semester is sent in late June and is due August 1. The bill for the spring semester is sent in late November and is due January 2. A late fee is assessed for all accounts which are past due.

As a convenience to parents and students, the College currently offers a payment plan administered by an outside organization which enables monthly payment of all or part of annual fees in installments without interest charges. Payments for the plan commence *prior* to the beginning of the academic year. Information about the payment plan is available from the Comptroller's Office.

No student is permitted to attend classes or enter residence until payment of the College charges has been made each semester. No student may register at the beginning of a semester, graduate, receive a transcript, or participate in room draw until all accounts are paid, including the activities fee assessed by the student Self-Government Association (SGA) officers. This fee covers class and hall dues and support for student organizations such as *The College News* and student clubs. All resident students are required to participate in the College dining plan.

CONTINUING ENROLLMENT FEE

A fee of \$250 per semester will be charged to all undergraduates who are studying at another institution during the academic year and who will transfer the credits earned to Bryn Mawr College.

RESIDENCE

Students are permitted to reserve a room during the spring semester for the succeeding academic year, prior to payment of room and board fees, if they intend to be in residence during that year. Those students who have reserved a room but decide, after June 15, to withdraw from the College or take a leave of absence are charged a fee of \$500. This charge is billed to the student's account.

GENERAL DEPOSIT

All entering students are required to make a deposit of \$200. This deposit remains with the College while the student is enrolled as an undergraduate. After one year of attendance, the deposit will be returned sixty days after graduation or withdrawal from the College. However, any unpaid bills and any expenses incurred as a result of destruction or negligence on the part of the student are applied against the deposit.

The cost of educating each student in 1995-96 was \$34,577. The difference over and above tuition must be met from private gifts and income from endowment. Contributions from parents able and willing to pay an additional sum to help meet the expenses of instruction are most welcome.

FINANCIAL AID AND SCHOLARSHIPS

The education of all students is subsidized by the College because their tuition and fees cover only part of the costs of instruction. To those students well-qualified for education in liberal arts and sciences but unable to meet the College fees, Bryn Mawr is able to offer further financial aid. Alumnae and friends of the College have built up endowments for scholarships; annual gifts from alumnae and alumnae clubs and from industrial and professional groups add to the amounts available each year. It is now possible to provide aid for more than fifty percent of the undergraduate students in the College. The value of the scholarships ranges widely, but the average grant in 1995-96 was approximately \$13,500.

Initial requests for financial aid are reviewed by the Financial Aid Office and are judged on the basis of the student and her family's financial situation. Financial aid awarded at entrance is renewable throughout the student's four years at the College, assuming satisfactory progress towards the degree and continued financial eligibility. Application for renewal must be made annually. Bryn Mawr College subscribes to the principle that the amount of aid granted a student should be based upon financial eligibility. All applicants must submit the Free Application for Federal Student Aid (FAFSA), the Bryn Mawr College Financial Aid Application, and the CSS Profile in support of the application for financial aid. When the total amount of aid needed has been determined, awards are made in the form of grants, loans, and jobs.

Bryn Mawr College administers two kinds of loan programs. The first consists of funds established through the generosity of alumnae and friends of the College, and the second is based on government funds made available through the Federal Perkins Loan program. Full descriptions can be found on page 283.

Bryn Mawr participates in the Federal Work-Study Program established by the Economic Opportunity Act of 1964. This program provides funds for campus jobs for students who meet the federal eligibility requirements. Students interested in this program should consult the director of financial aid.

Bryn Mawr's financial aid policies are described in greater detail in a brochure which is available upon request from the Financial Aid Office.

APPLICATIONS FOR FINANCIAL AID AT ENTRANCE

Instructions on applying for financial aid are included in the Admissions Prospectus. Each candidate must file the CSS Profile (college code #2049), the Free Application for Federal Student Aid (college I.D. #003237), as well as the Bryn Mawr Financial Aid Application, which is found in the Bryn Mawr Admissions Application. Students who file the Common Application will be sent this form. These forms must be filed no later than January 15 of the student's final year in high school. Early Decision Plan applicants must submit the CSS Profile and Bryn Mawr College Financial Aid Application by November 15 for the Fall Early Decision Plan, and by January 1 for the Winter Early Decision Plan. Applications for financial aid for transfer students are due no later than March 1.

RENEWAL OF UNDERGRADUATE FINANCIAL AID

Application for the renewal of financial aid must be made annually. The renewal of the award depends on the student's maintaining satisfactory progress towards the degree and on her continued need for assistance. Adjustments can be made each year to reflect the changes in the financial situation of the family.

The necessary forms for renewal may be obtained in the Financial Aid Office and should be filed no later than April 15.

For a list of scholarship funds and prizes which support the awards made see page 256; for a list of loan funds see page 282.

ACADEMIC AND RESIDENTIAL FACILITIES

LIBRARIES

The Mariam Coffin Canaday Library is the center of the Library system. Officially opened in April 1970, it contains the humanities and social sciences collections. The Rhys Carpenter Library, opening in the spring of 1997, will house the books and other study materials of the Departments of Classical and Near Eastern Archaeology, the Growth and Structure of Cities, and History of Art. The Lois & Reginald Collier Science Library was dedicated in March 1993, bringing together the collections for mathematics and the sciences. The collections of Haverford and Swarthmore College Libraries, which complement and augment those of Bryn Mawr, are readily accessible to students.

Tripod automated catalogue, installed in 1991, provides online information about all the materials in Bryn Mawr, Haverford, and Swarthmore Colleges' collections. Replacing the card catalogue, it can be searched by author, title, subject, keyword, and other parts of the catalogue record. Tripod displays bibliographic description, exact locations for all copies, circulation status, and current journal receipt information. Tripod provides online access to information about more

than 2.5 million journal articles. When a journal citation is found through author, title, subject, or keyword search, the student can also see immediately whether the journal volume is available in any of the three colleges' collections. Tripod is directly linked to a national collection of journal indexes (First Search), which gives access to journal literature in virtually all subjects. Tripod also links the student to the online catalogues of other major regional collections such as the University of Pennsylvania Library. The system can be queried from any terminal or microcomputer attached to the campus-wide telecommunications network.

Access to the Internet, the world's largest computer network, is available at designated work stations in each library and from any microcomputer attached to the campus network. Resources available on the Internet include library catalogues, electronic journals, e-mail, discussion group bulletin boards, and much more.

Bryn Mawr's libraries operate on the open-stack system, allowing students free access to the collections of more than one million books, documents, and microforms. Students are urged to familiarize themselves with the various aids provided for study and research. A series of pamphlets on library use is available for handy reference and the librarians may be consulted for further assistance. Research services provided by the reference staff include online bibliographic searching, as well as access to extensive research materials in both traditional and electronic formats. The John D. Gordan Reference Center provides a focus for reference books and services in the library.

The library is a member of the Pennsylvania Area Library Network/Union Library Catalogue of Pennsylvania (PALINET/ULC), which includes the libraries of the American Philosophical Society, the Library Company of Philadelphia, the Historical Society of Pennsylvania, the Academy of Natural Sciences, the Free Library of Philadelphia, the College of Physicians, the Rosenbach Museum and Library, the University of Pennsylvania, and Temple University. In addition, through PALINET, the library has access to the OCLC data bank of more than 31 million titles catalogued for academic and other libraries throughout the world. Materials not owned by Bryn Mawr are available through interlibrary loan. Students wishing to use another library should secure a letter of introduction from the circulation desk.

In addition to the books, periodicals, and microfilms basic to a college library, the Canaday Library offers students a small but distinguished collection of research materials among its rare books and manuscripts. The Marjorie Walter Goodhart Medieval Library, for example, provides basic texts for probing the mind of the late Middle Ages and the thought of the emerging Renaissance. This library is further enriched by the Phyllis Goodhart Gordan Collection of Medieval and Renaissance manuscripts and rare books. These early printed books are supplemented by a growing collection of sixteenth-century texts. Another noteworthy resource is the Louise Bulkeley Dillingham Collection of Latin American books, ranging from sixteenth-century exploration and settlement to contemporary Latin American life and culture. It has recently been augmented by the Rodríguez Monegal library of twentieth-century Latin American literature. Important and extensive collections of early material on Africa and Asia are to be found in the McBride and Plass collections. The Castle and Adelman collections expand opportunities for the study of the graphic arts in books. In addition to these special collections, the library has numerous rare books and manuscripts.

ARCHAEOLOGY COLLECTIONS

The Ella Riegel Museum of Classical Archaeology, housed on the third floor of the M. Carey Thomas Library, West Wing, contains a small study collection of Greek and Roman minor arts, especially vases, and a selection of preclassical antiquities. The museum was formed from private donations such as the Densmore Curtis Collection presented by Clarissa Dryden, the Elisabeth Washburn King Collection of classical Greek coins, and the Aline Abaecherli Boyce Collection of Roman Republican silver coins. The late Professor Hetty Goldman gave the Ella Riegel Museum an extensive series of pottery samples from the excavations at Tarsus in Cilicia. The collections are used for small research projects by undergraduate and graduate students.

ANTHROPOLOGICAL COLLECTIONS AND LABORATORIES

Bryn Mawr houses several large collections of New World artifacts, including the W. S. Vaux Collection of archaeological and ethnological materials. This important collection, made during the last half of the nineteenth century, has as its main emphasis the artistic works of New World Indians. The Anne and George Vaux Collection represents a wide selection of American Indian basketry from the Southwest, California, and the Pacific Northwest. The extensive Ward Canaday Collection contains outstanding examples of most of the ceramic and textile traditions for which Peru is known. Other comprehensive collections, given by faculty and friends of the College, represent the Old World Paleolithic and Neolithic, Paleo-Indian, Eastern Woodland, Southwestern, Middle Mississippian, and Mexican antiquities. These collections have been enlarged by osteological materials and casts of fossil hominids. There is also a small but growing collection of ethnomusical recordings, representing the music of native peoples in all parts of the world. The Department of Anthropology also houses the Laboratory of Pre-Industrial Technology, which provides a variety of resources and instrumentation for the study of traditional technologies in the ancient and modern worlds. The anthropology laboratories are used by undergraduate and graduate students.

LABORATORIES

The teaching and research in the sciences and mathematics take place in laboratories and classrooms at three separate locations on the campus. Work in biology, chemistry, geology, mathematics, and physics is carried out in the Marion Edwards Park Science Center, which is an interconnected complex consisting of Park Hall, the Lois and Reginald Collier Science Library, the Biology Building, and the Physical Sciences Building. The new wing of the Science Center has more than doubled the Department of Chemistry's former space. Work in computer science and psychology is carried out in the Computing Center in Eugenia Chase Guild Hall and Dalton Hall, respectively.

In the sciences, laboratory work is emphasized at all levels of the curriculum. The science departments have excellent facilities for laboratory teaching; in addition, they are particularly well-equipped for

research because they serve the educational needs of students working toward M.A. and Ph.D. degrees as well as students working toward the A.B. degree. As a consequence, not only are advanced undergraduates provided with opportunities to carry out research with sophisticated modern equipment, but they are also able to do so with the intellectual companionship of graduate students as well as faculty members. Among the major laboratory instruments available at the College are: a transmission electron microscope, a Zeiss universal microscope with Nomarski optics, an amino acid analyzer, a 300-MHz nuclear magnetic resonance (nmr) spectrometer, additional pulsed nmr equipment for studies of solids, a mass spectrometer, equipment for X-ray diffraction, a wide variety of lasers, field and laboratory equipment for environmental geochemical research, including a clean bench, heating and freezing stages for microscopes, a cathodeluminescence stage, and instruments for various kinds of spectroscopy, including infrared, Raman, visible, ultraviolet, fluorescence, atomic absorption, and D-C plasma emission. In addition, custom-designed equipment for special research projects is fabricated by a staff of two expert instrument makers and a glass blower in the College's instrument shop in the Science Center.

Because laboratory work in geology is based on observations in the field, the department conducts field trips in most of its courses and also has additional trips of general interest. To aid in the study of observations and samples brought back from the field, the department has excellent petrographic and analytical facilities, extensive reference and working mineral collections, including the George Vaux, Jr. Collection and the Theodore D. Rand Collection of approximately 10,000 specimens each, and a fine fossil collection. On deposit from the United States Geological Survey and the Defense Mapping Agency are 40,000 maps.

THE EUGENIA CHASE GUILD COMPUTING CENTER

Guild Hall houses computing and data communications systems, classrooms, the largest student computing lab on campus, and the offices of Computing Services, where professional staff is available for consulting and assistance with computing problems. The student computing staff also provides assistance at the Help Desk.

Bryn Mawr supports both Apple- and Intel-based computers. Some type of computing is done in every discipline represented in the College's curriculum. Computing activities include electronic mail and other types of Internet access, word processing, statistical analysis, programming, spreadsheets, and databases. Additional computing facilities are provided in natural and social science laboratories and in the Language Learning Center. Tripod, the online library catalog system shared by Bryn Mawr, Haverford, and Swarthmore Colleges, is available campus-wide and on the Internet. The campus network reaches more than half the residence halls with additional buildings networked each summer. Access to Bryn Mawr's computing facilities is available to all Bryn Mawr students free of charge.

Bryn Mawr's World Wide Web home page can be accessed on the Internet at www.brynmawr.edu.

THE SOCIAL SCIENCE DATA LABORATORY AND LIBRARY

The Department of Sociology maintains the Social Science Statistical Laboratory, which consists of a terminal cluster and printer staffed by undergraduate user consultants. A data library of machine-readable data files is available for student and faculty research and instructional use. Data library resources include election and census studies, political and attitudinal polling data, historical materials on the city of Philadelphia, national and cross-national economic statistics, ethnographic data files for cross-cultural study, and a collection of materials relevant to the study of women. Access to other data is available through the College's membership in the Inter-University Consortium for Political and Social Research.

THE LANGUAGE LEARNING CENTER

The modern language departments jointly maintain the Language Learning Center. This facility provides audio, video, and computer technology for learning languages. The center is equipped with cassette tape recorders, multi-standard VCRs, videodisc players, computers, and monitors for student use. From the monitoring console, a teacher can play one tape to an entire class, speak and listen to students in groups or individually, and record their responses. Pre-recorded materials are made available here as part of the curriculum of most language-learning courses. A satellite down-link provides access to international television broadcasts.

FACILITIES FOR THE ARTS

Goodhart Hall is the College's main performance space for theater and dance and houses the Office for the Arts. The theater has a proscenium stage with options for thrust and studio theater formats. There are also non-traditional spaces on campus for productions of an intimate and/or experimental nature. The College has two dance studios, one over Pembroke Arch, the other in the gymnasium. While Thomas Library Great Hall provides a large space for concerts, the Goodhart Music Room is used for ensemble rehearsals and intimate chamber music recitals. Students may reserve time in the five practice rooms in Goodhart, all of which are furnished with grand pianos. Arnecliffe Studio houses the program in painting and printmaking and there is an additional drawing studio in Rockefeller Hall. The Gallery, Room 204 in the Centennial Campus Center, provides an intimate space for shows by students, outside artists, and alumnae, as well as exhibits from the College's collections.

HALLS OF RESIDENCE

Halls of residence on campus provide full living accommodations. Brecon, Denbigh, Merion, Pembroke East, Pembroke West, and Radnor Halls are named for counties in Wales, recalling the tradition of the early Welsh settlers of the area in which Bryn Mawr is situated. Rockefeller Hall is named for its donor, John D. Rockefeller, and Rhoads North and South for the first president of the College, James E. Rhoads. Erdman Hall, first opened in 1965, was named in honor of Eleanor Donnelley Erdman, Class of 1921 and former member of the Board of Directors. The Clarissa Donnelley Haffner Hall, which brings together into an "international village" houses for students of Chinese, French, German, Hebrew, Italian, Japanese, Russian, and Spanish, was opened in the fall of 1970. Perry House is the African-American cultural center and residence. Batten House is reserved as a meeting space and residence for McBride students.

The College offers a variety of living accommodations, including singles, doubles, triples, quadruples, and a few suites. The College provides basic furniture, but students supply linen, bed pillows, desk lamps, rugs, mirrors, curtains, and other accessories they may wish. Summer storage is very limited and may be at the student's expense.

The maintenance of halls is the responsibility of the director of facilities services. At the end of the year, each student is held responsible for the condition of her room and its furnishings. Room assignments, the hall adviser program, residence life policies, and vacation period housing are the responsibility of the director of residential life.

THE BERN SCHWARTZ GYMNASIUM

The center of the College's physical education program is the Bern Schwartz Gymnasium. This 50,000 square-foot facility houses an eight-lane swimming pool and separate diving well, courts for basketball, badminton, and volleyball, a gymnastics room and dance floor, a fitness center, and a weight training room.

THE MARIE SALANT NEUBERGER CENTENNIAL CAMPUS CENTER

The Marie Salant Neuberger Centennial Campus Center, a transformation of the historic gymnasium building on Merion Green, opened in May, 1985. As the center for non-academic life the facility houses a café, lounge areas, meeting rooms, an exhibition space for the Arts Program, the College post office, and the bookshop. The Office of Conferences and Events, the Student Life Offices, the Accessibility Coordinator, the Self-Government Association, and student organization offices are also located there. Students, faculty, and staff use the campus center for informal meetings and discussion groups as well as for campus-wide social events and activities.

STUDENT LIFE

STUDENT ADVISING

The deans are responsible for the general welfare of undergraduates, and students are free to call upon them for help and advice on both academic and general matters. After students select their majors, at the end of their sophomore year, they are assigned a faculty adviser in the major who helps them plan their academic program for the junior and senior years. In addition to deans, students may consult the director of student programs, the director of international advising, the director of the office for institutional diversity, the director of financial aid, and the director of career development. The Student Life staff and upperclass students known as hall advisers provide advising and assistance on questions concerning life in the residence halls. The College's medical director, the consulting psychiatrist, and several counselors are also available to all students through scheduled appointments or, in emergencies, through the nursing staff on duty twenty-four hours a day in the Health Center.

For freshmen and transfer students, the College and the Bryn Mawr-Haverford Customs Week Committee provide a period of orientation. Freshmen and transfers come into residence before the College is opened to upperclassmen. The deans, hall advisers, and the Customs Week Committee welcome them, answer questions, and give advice. New students with their parents may meet at that time with the president. In addition, faculty members are available for consultation, and all incoming students have individual appointments with a dean or other adviser to plan their academic programs for the year. Undergraduate organizations at Bryn Mawr and Haverford Colleges acquaint new students with other aspects of college life.

THE HONOR CODE

The high degree of trust and responsibility which the College has always given to its students is reflected in the academic and social honor codes. These delegate to the individual students responsibility for integrity in their academic and social behavior. Responsibility for administering the academic honor code is shared with the faculty; the Academic Honor Board, comprised of both students and faculty, mediates in cases of infraction. In the social honor code, as in all aspects of their social lives, the students are entirely self-governing; a Social Honor Board, consisting of ten students, mediates in cases where social conflicts cannot be resolved by the individuals directly involved.

The successful functioning of the honor code is a matter of great pride to the Bryn Mawr community, and it contributes significantly to the mutual respect that exists among students and between students and faculty. While the honor code makes great demands on the students' maturity and integrity, it also grants them an independence and freedom which they value highly. To cite just one example, many examinations are self-scheduled, so that students may take them at whatever time during the examination period is most convenient for their own schedules and study patterns.

ACADEMIC SUPPORT SERVICES

Academic support services at Bryn Mawr fall into three general areas: the writing program, peer tutoring, and study skills support services. The writing program, which is free of charge, offers a writing center in which peer tutors assist students who need help with composition and other courses. The writing program also offers occasional workshops open to the campus. Peer tutoring is available in all subject areas; fees are low and subsidies are available. For students who need to strengthen their study skills, special study skills programs are offered each semester. When appropriate, students might also be referred to the Child Study Institute for evaluation and tutoring; the cost is also subsidized by the College.

Often, students have special needs for academic support—for example, learning-disabled students, students who are not conventionally prepared, and students who are not native speakers of English. In such cases, individualized programs are developed to meet students' needs. Any student interested in academic support services should consult with her dean.

THE BRYN MAWR-HAVERFORD CAREER DEVELOPMENT OFFICE

Students and alumnae/i are invited to make use of the services of the Career Development Office of Bryn Mawr and Haverford Colleges, which include: career and job search counseling; group and private sessions on resume writing, interviewing and job-hunting techniques; information on and referrals for on- and off-campus part-time, summer, and permanent positions; information on over 2,000 internships; scheduling on-campus interviews; and maintaining and furnishing to employers, upon request, letters of recommendation. Additionally, students may interview with employers participating in off-campus recruiting days co-sponsored with a consortium of selective liberal arts colleges. Conducted in January, these events are located in Atlanta, Boston, Chicago, Los Angeles, New York, Philadelphia, San Francisco, and Washington, D.C.

During the academic year the office sponsors career panels and individual speakers featuring alumnae/i to provide students with a broader knowledge of career options. In recent years, these programs have focused on careers in law, peacemaking, medicine, science, human services, the arts, business and management, finance, and computer science. Additionally, Career Development, the Offices of the President and Dean, and the Alumnae Association present an annual symposium on Women in the Professions, gathering alumnae/i to focus on current issues in a given field. Recent symposia engaged alumnae/i in business, education, law, medicine, and politics.

In the spring "NFP in NYC" and "NFP in D.C.," not-for-profit public service career fairs, are held in New York City and Washington D.C. for students and alumnae. Co-sponsored by the "Seven Sister Colleges," Columbia University, Harvard University, and Haverford College, these events offer the opportunity to learn about employment and career opportunities in a broad spectrum of not-for-profit organizations. Each October, Career Development, along with Swarthmore, Villanova, and

Rosemont, co-sponsors the Graduate Professional School Admissions Forum, which brings 90-100 graduate and professional school representatives to one of the five campuses. Students and alumnae/i are welcome to come and meet with representatives from graduate arts and sciences programs, as well as law, business, and medical schools.

In cooperation with alumnae/i, the office provides students with access to a network of graduates who make themselves available to students for personal consultation on career-related questions and who, in practical ways, assist students in learning more about career fields of interest. Students interested in exploring specific career fields may participate during winter and spring vacations in the Extern Program, shadowing sponsors representing these fields.

A Mentoring Program is designed to give alumnae/i and students of color an opportunity to share personal and career experiences. Mentors are encouraged to provide ongoing support through meetings and/or correspondence throughout the Bryn Mawr College experience.

RESIDENCE

Residence in the college buildings is required of all undergraduates with these exceptions: those who live with their families in Philadelphia or the vicinity, and those who live in houses or apartments of their own choosing after having received permission to do so from the College during the annual room draw. In the latter instance, it is the responsibility of students to obtain permission from their parents.

The College maintains the halls of residence in order to provide simple, comfortable living for its students. It expects students to respect its property and the standards on which the halls are run. A printed statement of residence regulations is included in the undergraduate student handbook. Failure on the part of a student to meet the requisite standard in the care of her room may cause the College to refuse her residence the following year.

Resident students are required to participate in the board plan (20 meals per week are provided). For those living at Batten House, Haverford College Apartments, or Perry House, where kitchens are available, the meal plan is optional. Any student with medical or other extraordinary reasons for exemption from participation in the meal plan may present documentation of her special needs to the dean. Ordinarily, with the help of the College dietician, the Dining Service can meet such special needs. When this is impossible, written notice of exemption will be provided by the dean.

Thirty-three hall advisers provide referrals and advice to students living in the halls, and work with the student officers who are responsible for the functioning of the social honor code within the halls.

The halls are open during fall and spring breaks and Thanksgiving vacation, but meals are not provided. During winter vacation, special arrangements are made for international students who wish to remain in residence. They must pay a special fee for room and board and must live in an assigned residence hall.

COEDUCATIONAL RESIDENCE HALLS

Coeducational residence halls on the Bryn Mawr campus were established in 1969-70, housing students from Bryn Mawr and Haverford. In addition, Haverford College has made available a number of dormitories for Bryn Mawr students. As neither Bryn Mawr nor Haverford allows room retention from one year to the next, the number and kind of coeducational housing units change each year.

LANGUAGE AND CULTURE HOUSE PROGRAM

Haffner Hall, which opened in the fall of 1970, is open to Bryn Mawr and Haverford students interested in the study of Chinese, French, German, Hebrew, Italian, Japanese, Russian, and Spanish languages and cultures. Admission is by application only and students must pledge to actively participate in House activities. Residence in a language house provides an excellent opportunity to gain fluency in speaking a foreign language.

NON-RESIDENT STUDENTS

For non-resident students, locked mailboxes are available in the Centennial Campus Center. Non-resident students are liable for all undergraduate fees except those for residence in a hall. All matriculated undergraduate students are entitled to full use of all out- and in-patient health services.

INSURANCE

The College is not responsible for loss of personal property due to fire, theft, or any other cause. Students who wish to insure against these risks should do so individually or through their own family policies.

LEAVE OF ABSENCE

A student who is in good standing at the College may apply to her dean for a leave of absence. (A student who loses her good standing after having been granted a leave of absence will normally be required to change her status to withdrawn.) A leave may be requested for one or two semesters and, once approved, reinstatement is granted contingent upon residential space available at the time a student wishes to return to the College. Application must be made in writing by June 15 of the academic year preceding the requested leave (or November 1 for a second-semester leave). The deans and members of the student's major department review any questions raised by the student or her dean regarding the approval of leave. In case of study away from Bryn Mawr, either abroad or at another institution in the United States, the transfer of credits is treated in the usual manner by the Transfer Credit Committee. A student should confirm her date of return, by letter to her dean, by March 1 preceding return for the fall semester and by December 1 for return in the spring semester.

Student Life

A student may extend her leave of absence for one additional semester beyond the originally agreed upon date of return, with her dean's permission. Application must be made in writing by June 15 of the academic year preceding the requested extension (or November 1 for a second-semester extension). A student who does not return after a leave without permission for an extension, or who does not return after an extension of leave, is withdrawn from the College and must apply for readmission.

HEALTH SERVICES

The Health Center is a primary-care facility, open 24 hours a day when the College is in session. The Health Service offers a wide range of medical and counseling services to all matriculated undergraduates.

Outpatient medical services include first aid, nursing visits, routine laboratory work, walk-in medical clinic, gynecological services, and appointments with the college physician. Inpatient care is provided for students who require nursing care or isolation, but do not require hospitalization. A current fee schedule is available upon request.

A counseling service is available to all undergraduate students. Consultation with a psychologist, social worker, or psychiatrist can be arranged by appointment through the Health Center.

MEDICAL REQUIREMENTS

All entering students must file medical history and evaluation forms with the health service before registration for classes.

MEDICAL INSURANCE

The College purchases a limited medical insurance policy for full-time undergraduate students. The insurance is provided in conjunction with services supplied by the Bryn Mawr College Health Center. The insurance policy will not cover a significant portion of the costs of a major illness. Therefore, it is strongly recommended that students maintain their coverage on their families' health plans or purchase additional insurance. The College does provide information about additional insurance plans that may be available to Bryn Mawr students. Information about the basic insurance plan and any available additional plans is sent to students each summer.

MEDICAL LEAVE OF ABSENCE

A student may, on the recommendation of the College physician or her own doctor, at any time request a medical leave of absence for reasons of health. The College reserves the right to require a student to withdraw for reasons of health, if in the judgment of the medical director, she is not in sufficiently good health to meet her academic commitments or to continue in residence at the College. Permission to return from a medical leave is granted when the College Health Service receives satisfactory evidence of recovery.

CHILD CARE

Child care is available for Bryn Mawr and Haverford College families on a space-available basis at the New Gulph Children's Center and at the Phebe Anna Thorne School. The New Gulph Children's Center is located at Conestoga and Sproul Roads, Villanova, just ten minutes from the campus. Children three months through four years old are eligible. The Center is open five days a week, 7:30 a.m. to 5:30 p.m.

The Center, conducted by a professional staff, incorporates appropriate age group development activities with high quality group care, plus a nursery school program. Flexible schedules can be arranged to accommodate the programs of students, staff, faculty, and alumnae parents. A minimum of three morning sessions for the infant/toddler program or five morning sessions for the nursery school program is required.

The fee scale is based on the age of the child and the number of hours. Tuition for the semester is payable in full or in monthly installments. Early registration for all programs is essential. For more information contact the director at (610) 688-2411.

The Phebe Anna Thorne School, situated on the Bryn Mawr campus, is a laboratory nursery school run in cooperation with the Department of Psychology. The Thorne School offers a developmentally oriented, child-centered program in which children develop a sense of competence and well-being within the group through play, problem-solving, and social interaction.

Additionally, Thorne School offers the Language Enrichment Preschool Program for children ages 2-5 who have identified speech and language difficulties, but who are not otherwise developmentally delayed. Two classes (M,T,Th and W,F) meet from 1-3:45 p.m. during the academic year. Speech therapy is built into this child-centered program with emphasis on language development for social and play interactions.

During the academic year, the Thorne School offers two morning programs, one for three-year-olds and one for four-year olds. The morning programs begin at 9:00 a.m. and conclude at 12 noon. Children may arrive as early as 8:30 a.m. and must be picked up by 12:00.

The Thorne School also offers an afternoon program for three- and four-year-olds combined. Although the specific content of activities may vary, the general structure of the afternoon program is similar to that of the morning programs. The afternoon program begins at 12:30 p.m. and concludes at 3:30 p.m. Children may arrive as early as 12:15 and must be picked up by 3:30.

Children may attend either the morning program, the afternoon program, or both. For children attending both programs, arrangements can be made for the child to remain at the Thorne School through the lunch period.

In July, the Thorne School offers a summer program. This program begins at 9:00 a.m. and concludes at 12 noon. The Language Enrichment Preschool Program also offers a five-week summer program, Mondays—Thursdays from 9:15 a.m. - 12 noon.

THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

The Family Educational Rights and Privacy Act of 1974 was designed to protect the privacy of educational records, to establish the right of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students have the right to file complaints with The Family Educational Rights and Privacy Act Office (FERPA), Department of Education, 5411 Switzer Building, 330 C Street S.W., Washington, D.C. 20201, concerning alleged failures by the institution to comply with the act.

Copies of Bryn Mawr's policy regarding the act and procedures used by the College to comply with the act can be found in the Office of the Undergraduate Dean. Questions concerning the Family Rights and Privacy Act may be referred to the Office of the Undergraduate Dean.

DESIGNATION OF DIRECTORY INFORMATION

Bryn Mawr College hereby designates the following categories of student information as public or "directory information." Such information may be disclosed by the institution for any purpose, at its discretion.

Category I	Name, address, dates of attendance, class, current enrollment status, electronic mail address
Category II	Previous institution(s) attended, major field of study, awards, honors, degree(s) conferred
Category III	Date of birth
Category IV	Telephone number
Category V	Marital status

Currently enrolled students may withhold disclosure of any category of information under the Family Educational Rights and Privacy Act of 1974 by written notification which must be in the Office of the Registrar, Taylor Hall, by 5 p.m. on the second Friday of September. Forms requesting the withholding of "directory information" are available in the Office of the Registrar. Bryn Mawr College assumes that failure on the part of any student to request the withholding of categories of "directory information" indicates individual approval of disclosure.

SECURITY INFORMATION ACT

As part of its compliance with Pennsylvania's College and University Security Information Act, Bryn Mawr provides to all students and all applicants for admission a booklet describing the College's security policies and procedures. The College also makes available to all students and applicants the crime report required by the Commonwealth of Pennsylvania for the most recent three-year period.

STUDENT RIGHT TO KNOW ACT

The Student Right to Know Act requires disclosure of the graduation rates of degree-seeking undergraduate students. Students are considered to have graduated if they complete their programs within 150% of the normal time for completion (six years).

Class entering fall 1989 (Class of 1993)

Size at entrance	324
Graduated after 3 years	2.2%
after 4 years	75.0%
after 5 years	79.9%
after 6 years	81.5%

EQUALITY OF OPPORTUNITY

Bryn Mawr College does not discriminate on the basis of race, color, religion, national or ethnic origin, sexual orientation, age, or physical ability in administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other College-administered programs, or in its employment practices.

In conformity with the Civil Rights Act of 1964, as amended, it is also the policy of Bryn Mawr College not to discriminate on the basis of sex in its education programs, activities, or employment practices. The admission of only women in the Undergraduate College is in conformity with a provision of the act. Inquiries regarding compliance with Title IX and other policies of non-discrimination may be directed to the Equal Opportunity Officer, who administers the College's procedures.

THE REHABILITATION ACT OF 1973, SECTION 504 AND THE AMERICANS WITH DISABILITIES ACT OF 1990

The College is firmly committed to the principle of making reasonable accommodation in all aspects of campus life to physically disabled students and staff. We have found that this is best achieved by meeting the needs of persons with various disabilities on an individual basis.

Disabled students in the Undergraduate College should consult Dean Jo Ellen Parker, the Undergraduate College's representative to the 504 Advisory Committee, or Jeanne Simon Angell, accessibility coordinator and chairman of the 504 Advisory Committee, for further information on accommodations.

GEOGRAPHICAL DISTRIBUTION

1995-96 UNDERGRADUATE DEGREE CANDIDATES

The students are from forty-six states, the District of Columbia, the Virgin Islands, the Marshall Islands, and Puerto Rico, and forty-four foreign countries with distribution as follows:

U.S. Residence

<i>New England</i>		<i>East South Central</i>	
Maine	7	Kentucky	9
New Hampshire	13	Tennessee	4
Vermont	4	Alabama	2
Massachusetts	57	Mississippi	<u>0</u>
Rhode Island	5		15 (1.3%)
Connecticut	<u>33</u>		
	119 (10.6%)	<i>West South Central</i>	
<i>Middle Atlantic</i>		Arkansas	2
New Jersey	103	Louisiana	3
New York	139	Oklahoma	4
Pennsylvania	<u>184</u>	Texas	<u>38</u>
	47(4.2%)		426 (38.0%)
<i>East North Central</i>		<i>Mountain</i>	
Ohio	23	Montana	2
Indiana	10	Idaho	1
Illinois	26	Wyoming	0
Michigan	8	Colorado	12
Wisconsin	<u>6</u>	New Mexico	9
	73 (6.5%)	Arizona	13
		Utah	6
<i>West North Central</i>		Nevada	<u>2</u>
Minnesota	14		45 (4.0%)
Iowa	4	<i>Pacific</i>	
Missouri	7	Alaska	1
N. Dakota	0	Washington	27
S. Dakota	0	Oregon	13
Nebraska	1	California	74
Kansas	<u>7</u>	Hawaii	6
	33 (2.9%)	Trust Territory	<u>1</u>
			122 (10.9%)
<i>South Atlantic</i>			
Delaware	7		
Maryland	61		
District of Col.	5		
Virginia	27		
West Virginia	6		
N. Carolina	12		
S. Carolina	3		
Georgia	11		
Florida	23		
Puerto Rico	1		
Virgin Islands	<u>1</u>		
	157(14.0%)		

Bryn Mawr College

Foreign Residence

Argentina	1	Malaysia	1
Austria	1	Mexico	3
Bangladesh	1	Mongolia	1
Belgium	1	Montenegro	1
Bermuda	1	Pakistan	2
Botswana	1	Panama	1
Bulgaria	1	Philippines	4
Chile	1	Poland	1
China	3	Romania	1
Croatia	1	Saudi Arabia	1
England	1	Senegal	1
France	1	Singapore	4
Greece	2	Spain	1
Hong Kong	6	Sweden	1
India	7	Switzerland	2
Italy	1	Taiwan	1
Japan	7	Thailand	1
Jordan	1	Turkey	3
Kenya	4	Vietnam	1
Korea	5	Yugoslavia	1
Lebanon	1	Zambia	1
Lesotho	3		

Totals:	U.S. Residence	1037	(92.4%)
	Foreign Residence	85	(7.6%)



CURRICULUM

The Bryn Mawr curriculum is designed to encourage breadth of learning and training in the fundamentals of scholarship in the first two years, and mature and sophisticated study in depth in a major program during the last two years. Its overall purpose is to challenge the student and prepare her for the lifelong pleasure and responsibility of educating herself and playing a responsible role in contemporary society. It encourages independence within a rigorous but flexible framework of divisional and major requirements and fosters self-recognition for individuals as members of diverse communities and constituencies.

The Bryn Mawr curriculum obtains further breadth through inter-institutional cooperation. Virtually all undergraduate courses and all major programs at Bryn Mawr and Haverford Colleges are open to students from both schools, greatly increasing the range of available subjects. Full-time Bryn Mawr students may also take courses at Swarthmore College, the University of Pennsylvania, and Villanova University during the academic year without payment of additional fees.

The degree of Bachelor of Arts is conferred upon students who have completed the requirements described below.

REQUIREMENTS FOR THE A.B. DEGREE

Summary of Requirements

For students who matriculated in September, 1991, or thereafter.

Students who matriculated prior to September, 1991 should consult the 1990-91 Undergraduate Catalogue for applicable degree requirements.

Thirty-two units of work are required for the A.B. degree. These must include:

1. two courses (one for students with advanced placement) in English composition, unless exempt
2. one course to meet the quantitative skills requirement
3. work to demonstrate the required level of proficiency in foreign language
4. eight units to meet the divisional requirements
5. a major subject sequence
6. elective units of work to complete an undergraduate program.

In addition, all students must complete eight half semesters of physical education and must meet the residency requirement.

English Composition Requirement

Each student must include in her program two semesters of English composition (Liberal Studies 001, 002) to be taken during her freshman year, unless she has achieved a score of 5 on the Advanced Placement Test or an equivalent. Such students must take one semester of composition. The English department also administers an exemption test upon request at the beginning of each academic year.

Curriculum

Quantitative Requirement

Each student must complete work in college-level mathematics or quantitative skills to consist of:

- a. passing with an honor grade an Advanced Placement examination in mathematics, or
- b. passing one course (one unit) in mathematics at the 100 level or above, or
- c. passing one course from among those designated with a "Q" in the Course Guide, or
- d. passing one math course which has 100-level math as a prerequisite, in which case the prerequisite will satisfy the quantitative skills.

For students who matriculate in or after September 1991, courses used to fulfill the requirement in Quantitative Skills may also be counted in Division II if they are identified as both Division II and Quantitative Skills in the Course Guide.

Foreign Language Requirement

There are two parts to this requirement:

1. Competence in Language: A knowledge of one language other than English (or other than the student's language of origin) to be demonstrated by:

- a. passing a proficiency test offered by the College every spring and fall, or
- b. attaining a score of at least 690 in a language achievement test of the College Entrance Examination Board (CEEB) taken in or after March, 1995, or by passing with an honor grade an Advanced Placement test, also offered by CEEB, in French, German, Spanish, or Latin. (The number of academic units of credit awarded for honor grades in Advanced Placement exams is determined by the departments), or
- c. completing two courses (two units) at the College above the elementary level with an average grade of at least 2.0 or a grade of at least 2.0 in the second course.

2. Additional Work in Language or Mathematics to consist of:

- a. completing a foreign language to an advanced level, defined as passing two courses (two units) at the 200 level or above with an average grade of at least 2.0 or a grade of 2.0 in the second course, or passing a proficiency test, the nature and standard of which are determined by the departments of foreign languages with the approval of the Curriculum Committee, or
- b. attaining knowledge of a second foreign language to be demonstrated in the same way as knowledge of the first (1 above), or
- c. completing two courses (two units) in mathematics at the 100 level

or above, including at least one semester of calculus.

d. passing with a grade of at least 2.0 a course in mathematics which has a 100-level math course as a prerequisite. Either the course taken or the prerequisite must be in calculus.

Courses used to fulfill the additional work requirement in mathematics cannot also be counted toward the quantitative or the divisional requirements. Courses taken to fulfill additional work in language, if they otherwise carry divisional credit, may be counted toward divisional requirements.

Foreign Language Requirement for Non-Native Speakers of English

Students whose native language is not English are those who applied to Bryn Mawr as international students and indicated on their admission application that English is not their language of origin, who have had several years of school in a language other than English and who are able to read, write, and speak this language, and who have submitted TOEFL scores as part of their admission application.

For these students, two semesters of Liberal Studies 001, 002: Reading and Composition fulfills the requirement for competence in language (as well as the English composition requirement). Non-native speakers of English who wish to complete the requirement for additional work by completing foreign language to an advanced level must pass two courses (two units) offered by the English department at the 200 level or higher, with an average grade of at least 2.0 or a grade of 2.0 in the second course.

Divisional Requirements

Each student must complete two units in the social sciences (Division I), three units in the natural sciences and mathematics (Division II), and three units in the humanities (Division III). At least two units in Division II must be laboratory science courses, and at least two different disciplines in Division II must be represented in the total of three units. Division III includes the performing and studio arts as well as courses in the history, theory, or criticism of the arts. One unit of performance or studio art may be counted toward the requirement in Division III. Students majoring in the humanities must offer at least one unit outside their major in Division III to fulfill the requirement.

Students should have made substantial progress on their divisional requirements before the start of the senior year. The requirement for laboratory work must be fulfilled before the start of the senior year. No course may satisfy more than one divisional requirement. A student may not use courses in her major subject to satisfy requirements in more than one division, unless the courses are cross listed in other departments. Liberal Studies 001, 002 do not meet the divisional requirement in Division III.

Divisional credit is assigned by course. Students should consult the course guide published each semester to identify which courses satisfy the various divisional requirements. Each student is responsible for understanding what divisional credit she may earn for the courses she takes. The Curriculum Committee considers petitions from individual students for exceptions.

Major Requirements

At the end of the sophomore year each student must choose a major subject and, in consultation with the departmental adviser, plan an appropriate sequence of major courses. She must complete a major work plan with the department's major adviser and submit a copy to her dean.

No student may choose to major in a subject in which she has incurred a failure, or in which her average is below 2.0. A student may double major, but she should expect to complete all requirements for both major subjects.

Students may choose to major at Haverford College, in which case they must meet the major requirements of Haverford College and the degree requirements of Bryn Mawr College. A student may major in any department at Haverford. Procedures for selecting a Haverford major are available from the Haverford Dean's Office at all times and are sent to all sophomores in the early spring. Permission of the Haverford dean is required for a double major that includes a Haverford department.

Every student working for an A.B. degree is expected to maintain grades of 2.0 or above in all courses in her major subject. A student who receives a grade below 2.0 in a course in her major is reported to the Undergraduate Council and may be asked to change her major. If, at the end of her junior year, a student has a major subject average below 2.0 she must change her major. If she has no alternative major, she will be excluded from the College. A student who is excluded from the College is not eligible for readmission. A student whose numerical grade average in her major remains above 2.0 but whose work has deteriorated may also be required to change her major.

A student with unusual interest or preparation in several areas could consider an independent major, one of the interdepartmental majors, a double major, a major with a strong minor, or a concentration involving work in several departments built around one major as a core. Such programs can be arranged by consulting the dean and members of the departments concerned.

A student who wishes to pursue independent study of a special area, figure, or problem within a given discipline, may, if she finds a faculty member willing and able to supervise such work, substitute one or two units of supervised work for one or two courses.

Each department sets its own standards and criteria for honors in the major, with the approval of the Curriculum Committee. Students should see departments for details.

The Independent Major

Students who wish to design independent majors must submit their completed applications before the spring recess of the sophomore year or, if junior transfers, by the Friday of the fourth week of classes in the fall term of the junior year.

Sophomores interested in the independent major should attend the special meeting conducted by the supervising dean (1996-97, Dean Behrend) early in the spring semester. Students must enlist two faculty members who are willing to act as sponsors: one faculty member, who acts as director of the program, must be a member of the Bryn Mawr faculty; the other may be a member of either the Bryn Mawr or Haverford faculty.

The application consists of a major work plan developed with the advice of the sponsors, a personal statement, and supporting letters. The work plan should show how the candidate intends to fulfill her degree

requirements; show a major plan to consist of at least eleven courses, all but four of which must be completed at Bryn Mawr unless there is a junior leave; at least four 300-level courses, which may include some senior work (a departmental senior seminar, a senior thesis, or other independent supervised work). The candidate must submit a statement describing her interest in the independent major, showing how her program differs significantly from any departmental major, and explaining the logic of the major work program she has submitted. A letter of support from each of the faculty sponsors must accompany the major work plan. All of the above are submitted to the supervising dean for the Committee on Independent Majors; the Committee's decisions on proposals are final. The Committee also approves the title of the major.

The progress of the students whose proposals are accepted is monitored by the Committee. All changes in the program must be approved by the sponsor and the Committee. A grade of 2.0 or higher is required for all courses in the major. If this standard is not met in a course, the student must change immediately to a departmental major.

The Minor

Many departments, but not all, offer a minor. Students should see departmental entries for details. The minor is not required for the Bachelor of Arts degree. A minor usually consists of six units, with specific requirements to be determined by the department. If a course taken under the CR/NC or NNG (see below) option subsequently becomes part of a student's minor, the grade is not converted to its numerical equivalent. There is no required average for a minor.

In addition to departmental minors, interdepartmental minors are available in Africana studies, computer science, feminist and gender studies, and theater and dance, and concentrations are available in Hispanic and Hispanic-American studies, international economic relations, neural and behavioral sciences, and peace studies. Courses are also available in Hebrew language and Hebrew and Judaic studies. See the section on Fields of Concentration and Additional Programs for further information on these courses and programs. It is not possible to minor in departments at Haverford College.

Physical Education

All students must complete eight terms (one half semester each) of physical education and pass a swimming test. Transfer students must have their previous physical education experience reviewed by the director of physical education. Students to whom this requirement presents special problems should consult the director of physical education.

Residency

Each student must complete a minimum of twenty-four units while in residence at Bryn Mawr. These may include courses taken at Haverford and Swarthmore Colleges and the University of Pennsylvania during the academic year. The senior year must be spent in residence. Students who have spent the junior year away from the College must complete eight units during the senior year. Students do not normally spend more than the equivalent of four years completing the work of the A. B. degree. Exceptions to this requirement for transfer students entering as juniors are considered at the time of transfer application.

Exceptions

All requests for exceptions to the above regulations are presented to the Curriculum Committee for approval. Normally, a student consults her dean and prepares a written statement to submit to the committee; a student may, in unusual cases, request permission to appear before the committee.

ACADEMIC REGULATIONS

Registration

Procedures: Each semester all Bryn Mawr students register for the next semester's courses with the deans on days specified in the Academic Calendar. Failure to register results in a \$15 fine. Students must then confirm their registration with the deans and submit their final programs to the registrar on the announced days at the beginning of each semester. Failure to confirm registration results in a \$25 fine.

Normal Course Load: Students normally carry a complete program of four courses (4 units) each semester. Requests for exceptions must be presented to the student's dean. Students may not register for more than five courses (5 units) per semester.

Registration Options

Credit-No Credit Option: A student may take four units over four years, not more than one in any semester, under the Credit/No Credit (CR/NC) or Haverford's No Numerical Grade (NNG) option. Transfer students may take one CR/NC unit for each year they spend at Bryn Mawr. A student registered for a course under either option is considered a regular member of the class and must meet all the academic commitments of the course on schedule. The instructor is not notified of the student's CR/NC or NNG registration because this information should in no way affect the students' responsibilities in the course.

A student may not elect both the CR/NC and NNG option in the same semester. A student registered for five courses is not permitted a second CR/NC or NNG registration.

Faculty members submit numerical grades for all students in their courses. For students registered CR/NC, the registrar converts the numerical grades of 1.0 and above to CR and the grade of 0.0 to NC for recording on the students' official transcripts. Numerical equivalents of CR grades are available to each student from the registrar, but once the CR/NC option is elected, the grade is converted to its numerical equivalent on the transcript only if the course becomes part of the student's major.

Courses taken under this option may be used to meet the divisional requirements and the English composition requirement. To meet these requirements, a grade of CR (1.0 or above) is required. No course in the major subject may be taken under this option. A student may elect to take a course to complete the language and mathematics requirements under the CR/NC option, but when grades of 2.0 or averages of 2.0 are required, that requirement must be met. The registrar monitors completion of requirements.

For regulations concerning NNG, see the Haverford College Academic Regulations.

Students wishing to take a course CR/NC must sign the registrar's register by the end of the third week of classes. *No student is permitted*

to sign up for CR/NC after that time. Students wishing to take English Composition on a CR/NC basis must normally elect this option at the beginning of the year. Exceptions may be made by the Director of English Composition in consultation with the student's dean. Students who wish to register for CR/NC for year-long courses in which grades are given at the end of each semester must register CR/NC in each semester because CR/NC registration does not automatically continue into the second semester in those courses. Haverford students taking Bryn Mawr courses must register for CR/NC at the Haverford Registrar's Office.

Year-long Courses: A few courses, including all introductory languages, are designed as year-long, two-semester sequences. In these courses students must complete the second semester in order to earn credit for both semesters. Students must have the permission of the professor to receive credit for only one semester of a year-long course. *Credit is never given for one semester of an introductory language course, although the grade is included in the G.P.A.* Courses to which this rule applies are so designated in each department's course lists.

Some courses, including many introductory level survey courses, are designed as two-semester sequences, but students may take either semester without the other and receive credit for the course.

Half-credit Courses: Half-credit courses may be taken for credit at Bryn Mawr, Haverford, Swarthmore, and the University of Pennsylvania. Bryn Mawr does not permit half-credit registration for the lecture or the laboratory portion of any course which normally includes both. Exceptions to this rule are made by the Curriculum Committee.

Independent Study: Most departments allow students to pursue independent study as supervised work, provided that a professor agrees to supervise the work. Requests for interdepartmental independent study generally require approval of the Curriculum Committee as well. Students pursuing independent study usually register for a course in that department numbered 403 and entitled Supervised Work, unless the department has another numerical designation for independent study. Students should consult with their deans if there are any questions regarding supervised work.

Auditing: Students may audit courses with the permission of the instructor. There are no extra charges for audited courses, and they are not listed on the transcript. Students may not register to take the course for credit after the stated date for Confirmation of Registration.

Limited Enrollment: Some courses are designated as limited enrollment in the Course Guide. The Course Guide provides details about restrictions. If *consent of the instructor* is required, the student is responsible for securing permission. If *course size is limited*, the final course list is determined by lottery. Students who have preregistered are given preference for inclusion in the lottery, but only those present on the first day of class to sign a list circulated by the instructor are considered.

Dropping a Fifth Course: Students who confirm their registration for five courses may, with their dean's permission, drop one course through the third week of the semester. After the third week, students taking five courses are held to the same standards and calendars as students enrolled in four courses.

Withdrawals: No student may withdraw from a course after Confirmation of Registration. Exceptions to this regulation may be made jointly by the professor and the appropriate dean only in cases when the

Curriculum

student's ability to complete the course is seriously impaired due to unforeseen circumstances beyond her control.

Cooperation with Neighboring Institutions

Full-time students at Bryn Mawr may register for courses at Haverford College, Swarthmore College, and the University of Pennsylvania during the academic year without payment of additional fees according to the procedures outlined below. (This arrangement does not apply to summer schools.) Credit toward the Bryn Mawr degree is granted for such courses with the approval of the student's dean, and grades are included in the calculation of the grade point average. Bryn Mawr also has a limited exchange program with Villanova University.

Haverford College: Students register for Haverford courses by listing them on the Bryn Mawr registration form, but students who register for Haverford courses that are limited in enrollment must follow Haverford procedures as described in the Course Guide.

Swarthmore College: A student may also enter Swarthmore courses on her Bryn Mawr registration form, but she must also register at Swarthmore by taking a note of permission from her dean, available in the Dean's Office, to 124 Parrish Hall, Swarthmore. She must also secure the instructor's permission.

The University of Pennsylvania: Bryn Mawr students may register for up to two liberal arts courses a semester at the University of Pennsylvania, on a space-available basis, provided that the course is not regularly offered at Bryn Mawr or Haverford. Scheduling problems are not considered an adequate reason for seeking admission to a course at Penn.

Not all courses offered at Penn are acceptable for credit toward the A.B. degree at Bryn Mawr. Students are responsible for determining that the course they wish to take is acceptable for credit toward their degree and should consult their dean about this before they register for the course.

In order to register for a course at Penn the student should consult the Penn course guide, and must take a note of permission from her dean to the College of General Studies at Penn and obtain a permit stamp from the relevant school or department at Penn. The Penn course guide and notes of permission are available in the Dean's Office.

If the Penn course guide indicates that consent of the instructor is required for enrollment in a course, the student is responsible for securing this permission from the instructor. Bryn Mawr students may not register for courses at Penn until the first week of each semester, and must meet all University of Pennsylvania deadlines for dropping and adding courses. It is the student's responsibility to make arrangements for variations in academic calendars. Students should consult their dean if they have any questions about University of Pennsylvania courses or registration procedures.

Villanova University: Bryn Mawr juniors and seniors may take one course per semester in the College of Arts and Sciences at Villanova University, on a space-available basis, provided that the course is not offered at Bryn Mawr or Haverford. If the course is fully enrolled, Bryn Mawr students can be admitted only with the permission of the Villanova instructor. This exchange is limited to superior students for work in their major or in an allied field; students must have permission of both their major adviser and their dean. Courses taken on the Villanova exchange may only be taken for full grade and credit; Bryn Mawr students may not elect Villanova's pass/fail option for a Villanova

course. Credits earned at Villanova are treated as transfer credits; the grades are not included in the student's grade point average, and these courses do not count toward the residency requirement.

In order to register for a course at Villanova, a student should consult the Villanova course guide, available in the Dean's Office, and obtain a registration form to be signed by her major adviser and returned to the Dean's Office. The Dean's Office forwards all registration information to Villanova; students do not register at Villanova. Students enrolled in a course at Villanova are subject to Villanova's regulations and must meet all Villanova deadlines regarding dropping and adding, withdrawal, and completion of work. It is the student's responsibility to make arrangements for variations in academic calendars. Students should consult their dean if they have any questions about Villanova University courses or registration procedures.

Conduct Of Courses

Attendance: Regular attendance at classes is expected. Responsibility for attendance, and for learning the instructor's standards for attendance, rests solely with each student. Absences for illness or other urgent reasons are excused, but within the semester a student should consult her instructors about making up the work. If it seems probable to the dean that a student's work may be seriously handicapped by the length of her absence, she may require the student to withdraw from one or more courses.

Quizzes and Examinations

Quizzes: Announced quizzes, written tests of an hour or less, are given at intervals throughout most courses. The number of quizzes and their length are determined by the instructor. Unannounced quizzes may also be included in the work of any course.

If a student is absent without previous excuse from a quiz, she may be penalized at the discretion of the instructor. If a student has been excused from a quiz because of illness or some other emergency, a make-up quiz is often arranged. The weight is decided by the instructor.

Examinations/Papers in Lieu of Examinations: An examination is required of all students in undergraduate courses, except when the work for the course is satisfactorily tested by other means.

If a student fails to appear at the proper time for a self-scheduled, scheduled, or deferred examination or fails to return a take-home exam, she is counted as having failed the examination and automatically receives a grade of 0.0 in the course. Failure to submit a paper assigned in lieu of an examination may result in failure of the course; it is the student's responsibility to inform herself of the instructor's policy on this point.

Deferred Examinations: A student may have an examination deferred by the dean only in the case of illness or some other emergency. When the deferral means postponement to a date after the conclusion of the examination period, she must take the examination at the next Deferred Examination Period listed in the Academic Calendar. Students should be aware that exams deferred in Semester I are given in the first weeks of Semester II; exams deferred in Semester II are not given until the first semester of the following academic year.

Deadlines, Extensions, and Incompletes for Written Work: Within the semester, the instructor in each course is responsible for setting the date when all written reports, essays, critical papers, and laboratory

reports are due. The instructor may grant permission for extensions within the semester; the written permission of the dean is not required although professors may ask students to inform their dean of the extension or may themselves inform the dean that they have granted an extension.

All essays and written reports in any course must be submitted to the instructor no later than the last day of classes in each semester. In special cases when a student has been prevented from completing her work due to circumstances beyond her control, with the joint written permission of the instructor and the student's dean, the date for handing in a piece of written work may be extended beyond the last day of classes, and the date for handing in a paper in lieu of examination may be extended beyond the examination period. In these cases, the student must request an extension slip from her dean, take it to the instructor for approval, and return it to the dean.

When written extensions are submitted to the registrar by the student's dean, the instructor submits a grade of Incomplete, which is temporarily recorded on the transcript. If the student does not meet the date set in her extension, and does not request and receive a further extension, the instructor is required to submit a final grade. When official extensions are not received by the registrar from the dean, and the instructor submits a grade of Incomplete, or fails to submit a grade, that grade is temporarily recorded on the transcript as an Unauthorized Incomplete. No grade except a failure can be recorded in place of an UI without an extension or other appropriate action taken jointly by the dean and instructor.

Senior Deadlines: Seniors must submit all written work at least 48 hours before the time senior grades are due in the Office of the Registrar. Extensions beyond that date cannot be granted to any senior who expects to graduate that year.

Social Seniors: Non-graduating seniors who matriculated with the graduating class may request status as social seniors. (A non-graduating senior is a senior with any degree requirements outstanding, including physical education. Generally, those non-graduating seniors with only one outstanding requirement will be permitted to be social seniors.) Permission to be a social senior is granted by the student's dean, who conveys her permission to the registrar and the commencement office. A social senior may attend the garden party and other functions connected with commencement. She may march at the end of the graduation line with cap and gown, but without hood. At commencement, she may, if she wishes, receive the recognition of the community, but not the diploma.

Dates: Specific dates for all deadlines are published and circulated by the registrar. It is the student's responsibility to inform herself of those dates.

Bryn Mawr College

The Bryn Mawr Standard of Work

The Grading System: The following grades are awarded at Bryn Mawr:

Merit	Satisfactory	Failure
4.0	1.7	0.0
3.7	1.3	
3.3	1.0	
3.0		
2.7		
2.3		
2.0		

The Merit Rule: A student must attain grades of 2.0 or above in at least one-half of the total number of courses taken while at Bryn Mawr. She may be excluded from the College at the close of any semester in which she has failed to meet this requirement and is automatically excluded if more than one-half of her work falls below 2.0 at the close of her junior year. A student who is excluded from the College is not eligible for readmission.

The Standard of Work in the Major Subject: Every student working for an A.B. degree is expected to maintain grades of 2.0 or above in all courses in her major subject. No student may choose as her major subject one in which she has received a grade below 1.0 or one in which her average is below 2.0.

At the end of the junior year, a student having a major subject average below 2.0 must change her major. If she has no alternative major, she is excluded from the College and is not eligible for readmission.

Any student receiving a grade below 2.0 in any course in her major subject is reported to the Undergraduate Council and may be required to change her major. A student whose numerical average in her major remains above 2.0 but whose work has deteriorated may also be required to change her major. In either case she receives a warning from the Undergraduate Council.

Changes of Grades: Changes of grades which have been entered on the transcript are made only by vote of the faculty at faculty meetings. The request to the faculty is made by the instructor. Students who have questions about grades should direct them to the instructor.

The Undergraduate Council: The Undergraduate Council, composed of the dean of the Undergraduate College, the associate and assistant deans, and one faculty member from each department, reviews the records of all students whose work has failed to meet the academic standards of the College. A student's record is brought to the attention of the council when (a) she has incurred a failure or NC following a previous failure or NC, or (b) when her work has failed to meet (1) the general standards embodied in the Merit Rule or (2) the specific standards in the major subject. The Undergraduate Council also reviews the record of any student whose work has seriously deteriorated.

A student whose record is brought before the council has a consultation with her dean and receives a letter specifying the standards she must meet by the end of the following semester. A student whose record has been reviewed by the council is put on probation the following semester, or the semester of her return if she has been asked to with-

draw, and may be required to meet regularly with her dean. Faculty members are requested to submit mid-semester reports for students whose work has been unsatisfactory. Students who meet the standards specified by the council during the semester on probation are then no longer on probation.

In some instances, usually after repeated review of continuing unsatisfactory work, the council may require the student to withdraw from the College and present evidence that she can do satisfactory work before being readmitted. The council may also recommend to the president that the student be excluded from the College. An excluded student is not eligible for readmission to the College.

Distinctions

The degree of Bachelor of Arts may be conferred *cum laude*, *magna cum laude*, and *summa cum laude*.

Cum laude: GPA: 3.40

In calculating the GPA, grades behind CR, NC, or NNG are *not* included. Summer school grades from Bryn Mawr earned on this campus *are* included, as are summer school grades from Avignon, Centro, and Florence. No other summer school grades are included. Term-time grades from Haverford, University of Pennsylvania, and Swarthmore, earned on the exchange, *are* included. Term-time grades transferred from other institutions are *not* included.

Magna cum laude: GPA: 3.60

In calculating the GPA, grades behind CR, NC, or NNG *are* included. Summer school and term-time grades are included or not as for *cum laude*.

Summa cum laude: GPA: 3.80

The degree is awarded *summa cum laude* to students with a GPA of 3.80 or higher. Grades behind CR, NC, or NNG are included. Summer school and term-time grades are included or not as for *cum laude*.

Credit for Work Done Elsewhere

All requests for transfer credit must be approved by the Transfer Credit Committee. Credit may be transferred for liberal arts courses taken at accredited four-year colleges and universities, provided that the student earns grades of 2.0 or C (C- grades are not acceptable for transfer credit) or better in these courses. Work done at approved foreign institutions is also accepted for transfer credit; in cases where numerical or letter grades are not given, the Transfer Credit Committee considers written evaluations of the student's work to determine whether she has earned the equivalent of at least 2.0 grades for this work. Grades earned in courses accepted for transfer credit are not included in the grade point average.

A student wishing transfer credit must submit an official transcript to the registrar. A student who wishes to meet College requirements (such as the English composition, mathematics and language, or divisional requirements) at Bryn Mawr with courses taken elsewhere during the academic year must obtain approval from her dean or the Registrar. In some cases, the student will be asked to obtain the approval of the appropriate department. Approval slips are available from the dean's office.

Credit is calculated on an hour-for-hour basis. Four semester hours is the equivalent of one unit of credit. Students taking a semester or year of course work away from Bryn Mawr must take the normal *full-time*

course load at the institution they are attending in order to receive a semester (four units) or a year (eight units) of transfer credit. Usually fifteen or sixteen semester hours, or between twenty-two and twenty-four quarter hours, is the equivalent of four units at Bryn Mawr; between thirty and thirty-two semester hours, or forty-five and forty-eight quarter hours, is the equivalent of eight units at Bryn Mawr. Students who complete less than a full-time program with grades of at least 2.0 or C receive proportionally less transfer credit.

A student who wishes to spend a semester or a year away from Bryn Mawr as a full-time student at another institution in the United States should have the institution and her program approved in advance by her dean, her major adviser, and other appropriate departments. Students who plan foreign study need the approval of the Foreign Study Committee in addition to that of her dean, major adviser, and other appropriate departments. The College cannot guarantee full credit in advance to students who study independently at other institutions. Ordinarily, students on leave are not eligible for College awards and prizes in the year of absence from the College.

Students who transfer to Bryn Mawr from another institution may transfer a total of eight units. Exceptions to this rule for junior transfers are considered at the time of the student's transfer application.

Students may use work which is not transferred for credit to satisfy College requirements, provided that such work would meet the standards for transfer credit.

Summer School: A student who wishes to present summer school work for credit must obtain advance approval of her plans from her dean and must submit an official transcript to the registrar. No credit is given for a course graded below 2.0 or C (C- grades are not acceptable). Credit is calculated as closely as possible on an hour-for-hour basis.

A total of no more than four units earned in summer school may be counted toward the degree; of these, no more than two units may be earned in any one summer.

Credit for College or University Work Taken Before Graduation from Secondary School: Students may receive no more than two units of transfer credit for courses taken prior to graduation from secondary school, provided that these courses were not counted toward secondary school graduation requirements. Requests for transfer credit for work done prior to secondary school graduation are subject to the same provisions and procedures as all other requests for transfer credit.

Departure from the College

Procedures: Every student who leaves Bryn Mawr prior to graduation must see her dean and complete a Notice of Departure. For a student departing during the academic year, some fees may be refundable. The specific dates of the refund schedule are published annually and are available in the offices of the dean, comptroller, and registrar. For resident students, the date of departure is the date on which keys are returned to the Office of Public Safety. The comptroller does not calculate a refund until she receives notice that keys have been returned.

Leave of Absence: Please refer to page 44.

Medical Leave: Please refer to page 45.

Required Withdrawal: A student whose behavior disrupts either the normal conduct of academic affairs or the conduct of life in the residence halls may be asked to withdraw by the dean of the Undergraduate

College, in consultation with the student's dean and, if appropriate, the chair of the student's major department. If the student wishes to appeal the decision, a committee consisting of three faculty members from the Executive Committee of the Undergraduate Council, the president of the Self-Government Association, and the head of Honor Board hears the student, the dean and, when appropriate, the student's department chairman. The committee makes its recommendations to the president of the College; the president's decision is binding. In cases of required withdrawal, no fees are refunded.

Withdrawal: Students who withdraw, whether by choice or as a result of the above procedures, must apply for readmission if they wish to return. Students who wish to return from withdrawal should request an application for readmission from their dean.

Haverford College Academic Regulations

Bryn Mawr students in Haverford courses are subject to Haverford regulations as applied and interpreted by the Haverford deans. For the purposes of these regulations, a course is defined as a Haverford or Bryn Mawr course solely on the basis of its designation in the course list ("B" for Bryn Mawr and "H" for Haverford), not the campus on which it is taught.

Academic Regulations at Swarthmore College, The University of Pennsylvania, and Villanova University

Bryn Mawr students enrolled in courses at these institutions are subject to the regulations of these institutions. It is the student's responsibility to inform herself about these regulations.

CURRICULAR OPPORTUNITIES

Premedical Preparation

The Bryn Mawr curriculum offers courses which meet the requirements for admission to the leading medical schools of the country, and each year a significant number of its graduates enter these schools. The minimal requirements for most medical schools are met by one year of English, one year of biology, one year of general chemistry, one year of organic chemistry, one year of calculus, and one year of physics. Students planning premedical work should consult early in their careers with Jodi Bergman Domskey, the undergraduate premedical adviser. For a list of scholarships to Bryn Mawr graduates for medical study, see p. 281.

Post-Baccalaureate Premedical Program

A post-baccalaureate premedical program is available to graduates of Bryn Mawr and other four-year accredited institutions through Bryn Mawr's Special Academic Programs. For further information, see p. 30.

Teaching Certification

Students majoring in liberal arts fields that are taught in secondary school may, by appropriate planning early in their undergraduate career, prepare themselves to teach in the public junior and senior high schools of Pennsylvania. By reciprocal arrangement, the Pennsylvania certificate is accepted by a number of other states. A student who wishes to teach should consult early in her college career with her dean, the director of

the Education program, and with the chairman of the department concerned so that she may make appropriate curricular plans. For further information, see the Education program, page 239.

Preparation for Law and Business Schools

There is no prescribed program of courses required for admission to law or business school; a student with a strong record in any field can compete successfully for admission. Students considering careers in law should consult Dean Heyduk, the College's pre-law adviser. Students interested in further education in business and in careers in business should consult the career development office.

The Three-Two Plan in Engineering and Applied Science

The College has negotiated arrangements with the University of Pennsylvania whereby a student interested in engineering and recommended by Bryn Mawr may, after completing three years of work at the College, transfer into the third year of one of the engineering schools at Penn, to complete two full years of work there. At the end of five years she is awarded a Bachelor of Arts degree by Bryn Mawr and a Bachelor of Science degree by Penn. Programs are available in many areas of specialization, including: aeronautical, biomedical, chemical, civil, computer science, materials science, mechanical, and systems engineering.

In her three years at Bryn Mawr the student must complete the Liberal Studies, mathematics, foreign language, and divisional requirements, as well as a prescribed science program and the basis for a Bryn Mawr major. (Students completing one of these programs have had majors at Bryn Mawr in biology, chemistry, mathematics, or physics.) Students do not register for this program in advance; rather, they complete a course of study that qualifies them for recommendation by the College for application in the spring semester of their third year at the College. Prerequisites for recommendation include completion of courses required by the engineering program, and by Bryn Mawr, approval of the student's major department is necessary for the transfer of credit from the engineering program to complete the major requirements at Bryn Mawr.

Students considering this option should consult Dean Behrend and the major adviser of the Physics Department, at the time of registration for Semester I of the freshman year. Interested students are encouraged to write to the physics adviser prior to their arrival at the College since careful planning of course enrollments is needed to meet both the College's graduation requirements and the engineering prerequisites. Students should consult with the physics adviser each semester to ensure that all requirements are being completed on a satisfactory schedule.

The Three-Two Program in City and Regional Planning

This arrangement with the Department of City and Regional Planning at the University of Pennsylvania allows a student to earn an A.B. degree with a major in the Growth and Structure of Cities at Bryn Mawr, and a degree of Master of City Planning at the University of Pennsylvania in five years. While at Bryn Mawr the student must complete the English composition, mathematics, foreign language, and the divisional requirements and the basis of a cities major. The student applies to the Master of City Planning program at Penn in her junior year. No courses taken prior to official acceptance into the Master of City Planning may be

Curriculum

counted toward the master's degree, and no more than eight courses may be double counted toward both the A.B. and the M.C.P. after acceptance. For further information students should consult Gary McDonogh, director of the Growth and Structure of Cities Program, early in their sophomore year.

Reserve Officer Training Corps

Bryn Mawr students are eligible to participate in the Air Force Reserve Officer Training Corps (AFROTC) through a cross-enrollment agreement with St. Joseph's University. All AFROTC aerospace studies courses are held on the St. Joseph's campus. This program enables a Bryn Mawr student to earn a commission as an Air Force officer while concurrently satisfying her baccalaureate degree requirements.

The AFROTC program of aerospace studies at St. Joseph's University offers both two-year and four-year curricula leading to a commission as a second lieutenant in the Air Force. In the four-year curriculum, a student takes the General Military Course (GMC) during the freshman and sophomore years, attends a four-week summer training program, and then takes the Professional Officer Course (POC) in the junior and senior years. The student is under no contractual obligation to the Air Force until entering the POC or accepting an Air Force scholarship. In the two-year curriculum, the student attends a six-week summer training program and then enters the POC in the junior year. Students opting for the two-year curricula must apply for acceptance into the POC by the end of the first semester or quarter of their sophomore year.

The subject matter of the freshman and sophomore year is developed from a historical perspective and focuses on the scope, structure, and history of military power with an emphasis on the development of air power. During the junior and senior years, the curriculum concentrates on the concepts and practices of leadership and management, and the role of national security forces in contemporary American society.

In addition to the academic portion of the curricula, each student participates in a one-and-a-half-hour Leadership Laboratory each week. During this period the day-to-day skills and working environment of the Air Force are discussed and explained. The Leadership Lab uses a student organization designed for the practice of leadership and management techniques.

Air Force ROTC offers two-, two-and-a-half, three-, and three-and-a-half-year scholarships on a competitive basis to qualified applicants. All scholarships cover tuition, lab fees, a flat rate allowance for books, plus \$100 tax-free monthly stipend. All members of the POC, regardless of scholarship status, receive the \$100 tax-free monthly stipend.

Degree credit allowed towards the Bryn Mawr A.B. for AFROTC courses is determined on an individual basis. For further information about the AFROTC cross-enrollment program, scholarships, and career opportunities, contact the Professor of Aerospace Studies, AFROTC Det 750, St. Joseph's University, Philadelphia, PA 19131, (610) 660-1190. Interested students should also consult their dean.

Summer Programs in Languages

Institut d'Etudes Françaises d'Avignon: Bryn Mawr College offers a summer program of intensive work in significant aspects of French culture. The program is open to male and female students from other colleges and from Bryn Mawr. Some of the courses carry graduate credit. The *Institut* director and faculty members are French professors teach-

ing in colleges and universities in the United States and Europe. Classes are held at the Palais du Roure, and the facilities of the Médiathèque Ceccano are available to the group. Students live with families in Avignon. Applicants for admission must have strong academic records and have completed a course in French at a third-year college level or the equivalent. For detailed information concerning admission, curriculum, fees, academic credit, and scholarships, students should consult Professor Guggenheim of the Department of French.

Centro de Estudios Hispánicos en Madrid: Under the auspices of the Department of Spanish, Bryn Mawr offers to qualified graduate and undergraduate students, men and women, a six-week summer program of study in the Spanish language, literature, culture, art, and social sciences. Established in 1965, our program integrates academic study and direct experience of Hispanic culture through a unique combination of course work, study excursions, tutorials, and independent work. With limited enrollment in all classes, students are assured of individual attention from the professors and advisers. The faculty of the *Centro* is composed of professors from Latin America, Spain, and the United States. Applicants must have completed the equivalent of two years of college-level Spanish. Students with one year of intensive elementary Spanish may also be considered for admission. The *Centro* offers three levels of instruction, adapted to the different needs of graduate and undergraduate students. In recent summers, offerings have included: LEVEL I ("El español de hoy," "Sociedad y política en España," "Introducción al análisis literario"); LEVEL II ("Conversación (nivel avanzado)," "Tres genios de la pintura española: El Greco, Velázquez y Goya," "Integración económica y la Unión Europea"); LEVEL III ("Composición (nivel superior)," "La representación de la mujer en la literatura española del Siglo de Oro," "La ficción en el teatro y el cine"). A limited number of scholarships is available each year. For information, see Enrique Sacerio-Garí, professor of Spanish and director of the *Centro*. The *Centro* was made possible by a grant from the Henry L. and Grace Doherty Charitable Foundation of New York.

Summer Program in Florence: Bryn Mawr, in conjunction with the University of Pennsylvania, offers a summer program of intensive study in the heart of Florence. Focusing on Italian language, culture, art and literature, the program is open to women and men from colleges and universities throughout the country. Courses carry full, transferable credit, and are taught by professors from institutions in both the United States and Europe. Classes are held at the *Rotonda del Brunelleschi*, the language center of the University of Florence. Applicants must have a solid academic background and a serious interest in Italian culture, but need not have previous coursework in Italian; introductory classes are offered. Students can make their own travel and housing arrangements, though most choose to travel to Italy with the group and stay at a pensione conveniently located in the center of Florence. Information about these accommodations is available through the program. Some need-based financial aid is available. For information, contact Professor Nicholas Patruno in the Italian Department.

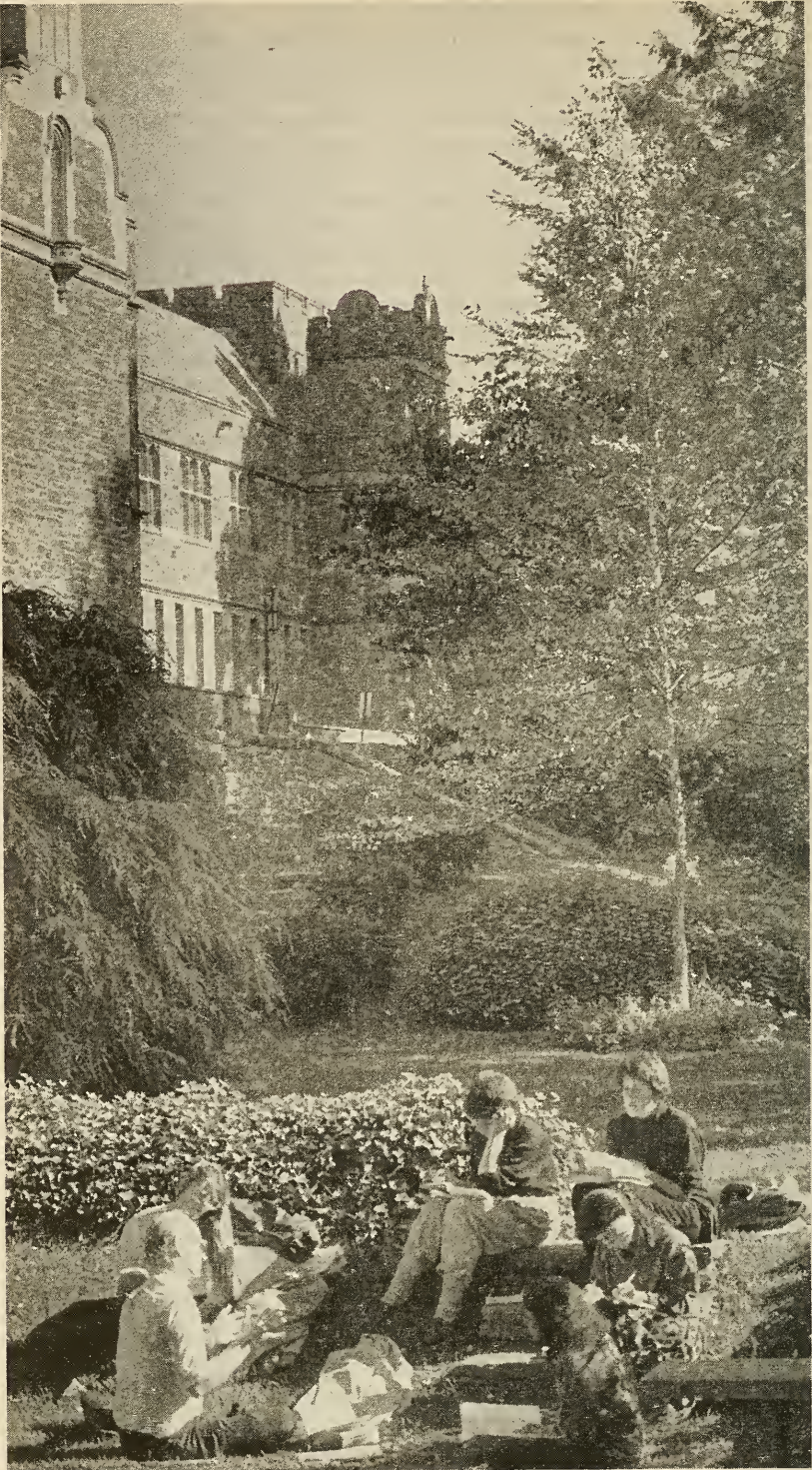
The College also participates in summer programs with the American Council of Teachers of Russian (A.C.T.R.) programs in Moscow and St. Petersburg, Russia. For further information, students should consult the Department of Russian about the A.C.T.R. programs.

Study Abroad in the Junior Year

Qualified students who have the approval of their major departments and their dean may apply for permission to study in a foreign country for a semester or a year. The College has approved approximately fifty programs in colleges and universities in other countries. Applicants must have strong academic records and must give evidence of competence in the language of the country in which they plan to study. At least two years of study at the college level are necessary to provide adequate language preparation for study in non-English speaking countries. All students who are considering study abroad in the junior year should consult Dean Behrend at the beginning of the sophomore year about the procedure, and confer with their deans and major departments to make sure their intended studies abroad are coordinated with the plan for the major subject and the completion of requirements.

Students who study abroad include majors across the humanities, the social sciences, and the life and physical sciences. In recent years, students have studied in: Argentina, Australia, Belgium, Canada, Chile, China, Costa Rica, Egypt, France, Germany, Greece, Hungary, India, Ireland, Israel, Italy, Japan, Kenya, Mexico, Russia, Senegal, Spain, Switzerland, Taiwan, Thailand, Turkey, and the United Kingdom.

Students who study abroad for the semester or the year pay the home tuition and, for programs which include food and housing, room and board fees to Bryn Mawr. The College, in turn, pays the program fees directly to the institution abroad and provides the student with a travel allowance to and from the program. Students who are eligible for financial aid at Bryn Mawr may apply for aid for the period in which they are studying abroad on an approved program. While there is a limit to the aid available to fund study abroad, it is expected that the needs of most eligible students will be covered. If it is not possible to aid all students who wish to go, priority is given to those whose academic programs are most enhanced by study abroad. A committee consisting of faculty members and the Study Abroad Adviser determines the preference ranking for the aid.



AREAS OF STUDY 1996-97

Key to Course Numbers

- 001-099 elementary and intermediate courses. With the exception of Greek 001 and Russian 001, these courses are not part of the work in the major.
100-199 first-year courses
200-299 second-year courses
300-399 advanced courses in the major
400-499 special categories of work (e.g., 403 for a unit of supervised work)

Some of the courses listed together (e.g., French 001-002) are full-year courses. Students must complete the second semester of a full-year course in order to receive credit for both semesters. Exceptions to this rule must be approved by the professor. *Credit is never given for one semester of an elementary language course.* Full-year courses are indicated by the phrase "both semesters are required for credit" in the course description. Other courses listed together (e.g., History 111, 112) are designed as two-semester sequences, but students receive credit for completing either semester without the other.

A semester course carries one unit of credit and is the equivalent of four semester hours or six quarter hours. Some courses carry one-half unit each semester; students should check the course guide for unit listing.

Selected Haverford College courses are listed in this catalogue when applicable to Bryn Mawr programs. Consult the Haverford College catalogue for full course descriptions. Students should consult their dean or major adviser for information about Swarthmore College, University of Pennsylvania, and Villanova University courses pertinent to their studies. Catalogues and course guides for Swarthmore College, the University of Pennsylvania, and Villanova University are available in the Dean's Office.

Listed in each department are courses which have been offered in the last four years, most of them on a regular basis. Whenever possible, courses which will not be offered in the current year are so noted. Additional information, indicating regular scheduling patterns for certain courses, is also provided whenever possible. For the most up-to-date information on courses, times of offerings, and instructors, students should consult the Bryn Mawr-Haverford Course Guide, which is published at the time of pre-registration for the fall semester. Each course description includes information about prerequisites. In parentheses following the description are: the name of the instructor or instructors; the College requirements the course meets, if any; and information on cross listing.

Key to Phrases Describing Requirements

Quantitative Skills: indicates courses that meet the requirement for work in mathematics or Quantitative Skills.

Division I: indicates courses that meet part of the divisional requirement for work in social science.

Division III: indicates courses that meet the laboratory science part of the divisional requirement for work in the natural sciences and mathematics.

Division II: indicates courses that meet part of the divisional requirement for work in natural sciences or mathematics, but not the laboratory science part of the Division II requirement.

Division III: indicates courses that meet part of the divisional requirement for work in the humanities.

Departmental and Interdepartmental Majors

ANTHROPOLOGY

Professors:

Richard S. Davis, Ph.D.

Philip L. Kilbride, Ph.D., *Chairman*

Assistant Professors:

Mary Doi, J.D.

Steve Ferzacca, Ph.D.

Lecturers:

Janet Monge, Ph.D.

Affiliated Faculty:

Gary McDonogh, *Director of Growth and Structure of Cities*

Janet Morford, *Lecturer in French*

The department has two objectives. The first is to introduce the liberal arts student to the discipline of anthropology: its aims, methods, theories, and contributions to an understanding of the nature of human culture and society; the second is to provide the student majoring in anthropology, in addition to the above, a firm understanding of the basic concepts and history of the discipline through examination of theoretical works and intensive studies in the ethnography and prehistory of several world areas. Laboratory experience is provided in a number of courses.

Requirements in the major subject are 101, 102, 303, 398, 399, an ethnographic area course which focuses on the cultures of a single region, and four additional 200- or 300-level courses in anthropology. Students are encouraged to select courses from each of four sub-fields of anthropology (e.g., prehistory, bio-anthropology, linguistics, socio-cultural).

Qualified students may do departmental honors in their senior year. Honors are based on the quality of the senior thesis (398,399). Units of independent work may be taken with the approval of the instructor in the department. Students may also take a combined A.B.-M.A. degree in anthropology.

Requirements for a minor in anthropology are 101, 102, 303, one ethnographic course, and two additional 200- or 300-level courses in anthropology.

Students may elect to do part of their work away from Bryn Mawr. Courses that must be taken at Bryn Mawr include 101, 102 (103 at Haverford), 303, 398, and 399.

Anthropology

101, 102. Introduction to Anthropology The place of humans in nature, human evolution, and the history of culture to the rise of early civilizations in the Old and New Worlds; forms of culture and society among contemporary peoples. (staff, Division I)

106. Sex, Culture, and Society Introduction to the anthropological study of sex differences; the social roles of women and men and the cultural meanings of gender in a range of different societies. Theoretical perspectives on similarities and differences in gender patterning are examined. (Doi, Division I)

201. Philosophy of Social Science: Introduction to Cultural Analysis The historical study of theoretical approaches within anthropology which have systematically applied the culture concept. Evolutionary, psycho-cultural, ecological, and symbolic paradigms are emphasized. Prerequisite: Anthropology 102 or permission of instructor. (Kilbride, Krausz, Division I; cross listed as Philosophy 210)

202. Introduction to Social Organization An introduction to basic concepts and methods in the study of social organization and social classification. Major ethnographic and theoretical contributions in social anthropology are examined. Prerequisite: Anthropology 102 or permission of instructor. (staff, Division I) *Not offered in 1996-97.*

203. Human Ecology The relationship of humans with their environment; culture as an adaptive mechanism and a dynamic component in ecological systems. Human ecological perspectives are compared with other theoretical orientations in anthropology. Prerequisites: Anthropology 101, 102, or permission of the instructor. (Davis, Division I)

206. Conflict and Conflict Management: A Cross-Cultural Approach (Ross, Division I; cross listed as Political Science 206)

208. Human Biology A traditional focus in physical anthropology, human biology encompasses an overview of how humans, as individuals and populations, are similar and different in their biology and how this can be studied and understood. We consider the relationships between human populations and their environment, integrating aspects of human physiology, demographic ecology, and human genetics, both at the molecular and population levels. Prerequisite: Anthropology 101 or permission of instructor. (Monge, Division I)

209. Human Evolution The position of humans among the primates, processes of biocultural evolution; the fossil record and contemporary distributions of varieties of humans. Prerequisite: Anthropology 101 or permission of instructor. (Monge, Division I) *Not offered in 1996-97.*

210. Medical Anthropology A cross-cultural analysis of the relationship of culture and health focusing on anthropology and clinical practice, anthropology and American health care, and anthropology and the control of tropical diseases, emphasizing a third world orientation. Prerequisite: Anthropology 102 or permission of instructor. (Ferzacca, Division I) *Not offered in 1996-97.*

211. African American Culture and Community An examination of the social development and functioning of the African American community, a unique pattern of experiences in American society. Topics include African heritage, slavery, Reconstruction, urbanization, changing family and community organization, the struggle for civil rights, and cultural developments. (Kilbride, Washington, Division I; cross listed as Sociology and Growth and Structure of Cities 211) *Not offered in 1996-97.*

213. Food and Human Bio-Cultural Evolution An exploration of the nature and the adaptive context of the human-food interplay from the beginning of the human line in tropical Africa to the appearance of modern humans in virtually all global environments. Emphasis is placed on the nature and evidence for human food getting behavior through time and the attendant human biological influences and modifications. Prerequisites: Anthropology 101, 102, or permission of the instructor. (Davis, Monge) *Not offered in 1996-97.*

220. Methods and Theory in Archaeology An examination of techniques and theories archaeologists use to transform archaeological data into statements about patterns of prehistoric cultural behavior, adaptation, and culture change. Theory development, hypothesis formulation, gathering of archaeological data and their interpretation and evaluation are discussed and illustrated by examples; theoretical debates current in American archaeology are reviewed; and the place of archaeology in the general field of anthropology is discussed. Prerequisite: Anthropology 101 or permission of instructor. (Davis, Division I) *Not offered in 1996-97.*

222. Expressive Arts and the Politics of Identity in Central Asia An introduction to the diverse peoples and rich cultures of Central Asia. Explores relationships between the expressive arts and the bases of identity such as religion, gender, and nationality. Includes case studies of the influence of Islam on women in performing arts, the arts as tools of social reform in Soviet Central Asia, and the importance of cultural production in nation-building in post-Soviet Central Asia. Prerequisites: Anthropology 102 or permission of the instructor. (Doi, Division I)

225. Paleolithic Archaeology A study of the Paleolithic archaeological record from Europe, Asia, and Africa, focusing on the dynamics of cultural evolution; cultural and natural transformations leading to the Neolithic Revolution are also examined. Laboratory work with prehistoric materials is included. Prerequisite: Anthropology 101 or permission of instructor. (Davis, Division I) *Not offered in 1996-97.*

240. Traditional and Pre-Industrial Technology An examination of several traditional technologies, including chipped and ground stone, ceramics, textiles, metallurgy (bronze), simple machines, and energy production; emphasizing the physical properties of various materials, production processes and cultural contexts both ancient and modern. Weekly laboratory on the production of finished artifacts in the various technologies studied. Prerequisite: permission of instructor. (Davis, Division I) *Not offered in 1996-97.*

Anthropology

246. Women's Narratives on Modern Migrancy, Exile, and Diaspora (Seyhan, Division III; cross listed as Comparative Literature 245 and Growth and Structure of Cities 246)

253. Childhood in the African Experience An overview of cultural contexts and indigenous literatures concerning the richly varied experience and interpretation of infancy and childhood in selected regions of Africa. Cultural practices, such as pregnancy customs, naming ceremonies, puberty rituals, sibling relationships, as well as gender identity, are included. Modern concerns such as child abuse, street children, and other social problems involving children of recent origin are considered in terms of theoretical approaches current in the social sciences. Prerequisites: Anthropology major or other social science, Africana concentrator, or permission of the instructor. (Kilbride, Division I)

257. African Ethnology: Urban Problems A study of selected sub-Saharan societies and cultures, illustrating problems in ethnography. Prerequisite: Anthropology 201, 202, or 205 (at Haverford), or permission of instructor. (Kilbride, Division I; cross listed as Growth and Structure of Cities 257) *Not offered in 1996-97.*

303. History of Anthropological Theory The major theoretical trends in social and cultural anthropology, including evolutionism, historical particularism, functionalism, structuralism, and symbolic anthropology. The relationship of anthropology to the other social sciences is explored; the significance of the culture concept and anthropology's dual goals of description and explanation is emphasized. Prerequisites: Anthropology 201, 202, or 205 (at Haverford), and at least one additional anthropology course at the 200 or 300 level. (Ferzacca)

309. Origins of Civilization and the State The archaeological evidence and theoretical explanations for the emergence and development of complex societies in the New and Old Worlds; emphasizing the archaeological records of Mesopotamia and Mesoamerica, also including Egypt, the Indus Valley, North China, and Peru. Alternative theories of state formation are reviewed. (Davis, Ellis; cross listed as Classical and Near Eastern Archaeology 309) *Not offered in 1996-97.*

323. Clinical Encounter An exploration of major theories, methodological issues, and conceptual frameworks informing the practice of medical anthropology in clinical and community settings. Case materials are drawn from research in North America and Europe. The clinical encounter, broadly defined to include medical clinics and community services, is considered as a social process and therefore open to ethnographic inquiry. Prerequisites: Anthropology 210 or permission of the instructor. (Ferzacca)

324. Cultural Ecology Relationship of people with their environment; culture as an adaptive mechanism and a dynamic component in ecological systems. (Davis) *Not offered in 1996-97.*

331. Methods and Techniques of Pottery Analysis (staff; cross listed as Classical and Near Eastern Archaeology 331) *Not offered in 1996-97.*

340. Psychological Anthropology Approaches to an understanding of culture through study of cultural factors in the development of human personalities and individual experiences in different socio-cultural settings. Prerequisite: a 200-level anthropology course or permission of instructor. (Kilbride) *Not offered in 1996-97.*

341. Cultural Perspectives on Human Sexuality, Marriage, and the Family A consideration of various perspectives that inform our understanding of cross-cultural constructions of sexuality, marriage, and the family. Sociobiology, deviance, feminism, social constructionism, and cultural evolutionary approaches are compared using primarily anthropological-ethnographic case examples. Applications emphasize current United States socially constructed categories such as AIDS, plural marriage, gender diversity, divorce, and rape. Prerequisites: any Biology, History, or social science major. (Kilbride, Division III) *Not offered in 1996-97.*

350. The Anthropology of Gender An intensive, comparative ethnographic investigation into gender differentiation and gender hierarchy, emphasizing both social, structural, and symbolic dimensions, with attention to the implications of gender studies for anthropological theory and method. Prerequisites: a 200-level ethnographic area course or consent of instructor. (staff) *Not offered in 1996-97.*

360. Advanced Topics in Human Evolution A seminar for advanced students in human evolutionary studies. Topics include discussions of all phases of human history from Plio/Pleistocene hominines to the appearance of *Homo sapiens sapiens*. Prerequisite: Anthropology 209 or consent of instructor. (Monge) *Not offered in 1996-97.*

398, 399. Senior Conferences The topic of each seminar is determined in advance in discussion with students. Sections normally run through the entire year and have an emphasis on field research and analysis. Class discussions of work in progress and oral and written presentations of the analysis and results of research form the basis of evaluation for the year. Seminars are: Ethnographic Methodology, Archaeological Methodology. (staff)

403. Supervised Work Independent work is usually open to junior and senior majors who wish to work in a special area under the supervision of a member of the faculty and is subject to faculty time and interest. (staff)

Courses which may be offered by current faculty, as student interest and circumstances permit:

358. Anthropology/Biology of Gender Differentiation

Haverford College's offerings in anthropology include:

- 103a. Introduction to Anthropology
- 204a. Anthropology of Gender
- 205b. Social Anthropology
- 206a. Anthropology of Art
- 207b. Visual Anthropology

- 230a. Cultural Politics of Nature
- 241a. The Anthropology of the Mediterranean Area
- 242a. Bantu Language and Culture
- 243a. Gender and Power in East Asia
- 244b. Letters Home: The Predicament of Ethnography
- 255b. Anthropology of Religion
- 257b. Ethnic Conflict
- 259a. Anthropology of Modern Japan
- 310b. Modes of Thought
- 356a. Social and Cultural Theory
- 357a. Political Anthropology
- 358b. Anthropology of Capitalisms
- 450b. Senior Seminar

ASTRONOMY

At Haverford College

Professors:

Stephen P. Boughn, Ph.D.

Louis C. Green, Ph.D., *Emeritus*

R. Bruce Partridge, D.Phil., *Chairman and Major Adviser*

Lyle D. Roelofs, Ph.D.

Visiting Assistant Professor:

Esther Zirbel, Ph.D.

The objective of a major in astronomy is to study the phenomena of the extraterrestrial universe and to understand them in terms of the fundamental principles of physics.

Requirements in the major subject are Astronomy 204b; Astronomy 305a; three additional 300-level astronomy courses, one of which may be replaced by an upper-level physics course; one 400-level astronomy course which may be replaced by an upper-level physics course; and three written three-hour comprehensive examinations. Prerequisites are Physics 105a, Physics 106b, Physics 213a, and Physics 214b. Two 200-level mathematics courses are also required. Bryn Mawr equivalents may be substituted for the non-astronomy courses.

101a. Astronomical Ideas Fundamental concepts and observations of modern astronomy, such as the motions and surface properties of the planets, the birth and death of stars, and the properties and evolution of the universe. Not intended for students majoring in the natural sciences. (Partridge, Division II)

112b. Survey of the Cosmos A study of the properties and evolution of the Universe and of large systems within it. The qualitative aspects of general relativity (including black holes) and of mathematical models for the geometry of the Universe are also studied, along with the history of the Universe from its early exponential expansion to the formation of galaxies. The role of observations in refining modern scientific under-

standing of the structure and evolution of the Universe is stressed. The approach is quantitative, but any mathematics beyond straightforward algebra is taught as the class proceeds. (Partridge, Division II)

204b. Astrophysics I: Introduction to Astrophysics A survey of modern astrophysics: planets, stars, galaxies, interstellar matter, and cosmology. Some observational work is required. Prerequisites: Physics 105a and 106b, Mathematics 114b or equivalent. (Partridge and Zirbel, Division II)

305a. Astrophysics II: Galactic Dynamics, the Interstellar Medium, and Stellar Structure and Evolution A study of the stars and their environments. About two-thirds of the course is devoted to the theory of the structure of stellar interiors and atmospheres and the theory of stellar evolution and the remaining one-third covers Galactic dynamics and the interstellar medium. Prerequisites: Astronomy 204b and Physics 214b. (Zirbel)

313c. Observational Optical Astronomy This is a one credit, full year course. The course consists of five observing projects which primarily involve using the CCD camera on both a 10" refractor and a solar celostat. Projects include solar spectroscopy (magnetic field measurements, elemental abundances, and helioseismology); variable star photometry; H-alpha imaging; imaging and photometry of galaxies; star cluster photometry; instruction in the use of image processing software and CCD camera operation. Students work in groups of two with minimal faculty supervision. Formal reports are required. Prerequisite: Astronomy 204b. (Zirbel)

320b. Cosmology and Extragalactic Astronomy The theory of the origin, evolution, and large-scale structure of the universe (Big Bang theory). Review of the relevant observational evidence. A study of remote galaxies, radio sources, quasars, and intergalactic space. Prerequisite: Astronomy 204b. (staff) *Offered in 1997-98 and alternate years.*

322b. Non-optical Astronomy Introduction to the basic techniques of radio astronomy, including aperture synthesis, and the various mechanisms that give rise to line and continuum emission at radio wavelengths. Some discussion of other branches of non-optical astronomy (including X-ray, neutrino, cosmic-ray, gravitational wave, infrared, and ultraviolet). Prerequisite: Astronomy 204b. (Partridge) *Offered in 1996-97 and alternate years.*

404a,b. Research in Astrophysics This course is intended for those students who choose to complete an independent research project in astrophysics under the supervision of a faculty member. Prerequisites: Astronomy 204b and 305a. (staff)

480a,b. Independent Study Intended for students who want to pursue some topic of study that is not currently offered in the curriculum. In order to enroll, a student must have a faculty sponsor. Prerequisites: Astronomy 204b and 305a. (staff)

BIOLOGY

Professors:

Karen F. Greif, Ph.D. (on leave, 1996-97)

Paul Grobstein, Ph.D., *Eleanor A. Bliss Professor*

Anthony R. Kaney, Ph.D., *Chairman*

Professor of Biology and Psychology:

Margaret A. Hollyday, Ph.D.

Associate Professor:

David J. Prescott, Ph.D.

Assistant Professors:

Peter D. Brodfuehrer, Ph.D., *Major Adviser*

Ann L. Herzig, Ph.D.

Senior Laboratory Lecturer:

Stephen L. Gardiner, Ph.D.

The goals of the department are to introduce students to major concepts and issues in contemporary biology and to provide the opportunity for majors to learn, both by course work and independent research, the methods by which scientific knowledge is gained. Introductory courses are aimed at exposure to major areas of biology and to the experimental approaches by which we gain insight into function of cells and organisms, hereditary mechanisms, developmental processes, behavior, and evolution. Advanced courses examine important disciplines in greater detail by experimentation and readings of primary literature. A thesis, based on either one semester of library research or two semesters of laboratory research, investigates a single issue in depth, requiring synthesis of both hypotheses and experimental data.

Major requirements are Biology 101, 102 or equivalent (advanced placement or exemption by permission of the department of one semester); two of the following six courses, including at least one of the first two: Biology 201, 271, 202, 210, 220, 236; and two laboratory courses at the 300 level. Courses at a cooperating college, or in another Bryn Mawr department, may be substituted with the permission of the department.

Three additional courses in biology are required. One of the following options must be selected: (1) two seminar courses, plus one semester of supervised library research with thesis; (2) one seminar course, one advanced course, and one semester of supervised library research with thesis; (3) one seminar course and two semesters of supervised laboratory research with thesis. Required courses in other departments are Chemistry 211, 212: Organic Chemistry and Physics 101, 102: Introductory Physics.

Recommended courses in other departments are mathematics, statistics, computer science, physical chemistry, and physiological psychology, depending on area of specialization. To encourage students majoring in biology to acquire background in mathematics, physics, or chemistry, for specialization in mathematical biology, biophysics, or

biochemistry, the total number of biology courses required may, with departmental permission, be reduced.

The Department of Biology participates with other departments in offering two concentrations within the major: (1) the neural and behavioral sciences (see page 251), and (2) environmental sciences (see page 242). Students electing either concentration within the major must fulfill overlapping requirements of both the major and the concentration (see pages listed above for details).

Honors can be achieved in two ways: By maintaining a course average of 3.7 in the major and required allied subjects or by maintaining a grade point average of 3.2 in the major and required subjects and a grade of 4.0 for laboratory research and a paper based on the research. Final selection for honors is made by the biology faculty from the list of eligible students.

Prior to undertaking the supervised library or laboratory research project required for the major, students should speak with the members of the faculty about available projects. Some summer stipends are usually available for students who decide to do laboratory research and who wish to begin their research the summer before their senior year. In special cases, research may be carried out at other institutions, with the approval of the department.

A minor in biology consists of six one-semester courses in biology. Courses in other departments may be substituted with departmental approval.

The department offers a certification program in secondary teacher education. For more information, see the description of the Education program in this catalogue.

101. Biology: Basic Concepts An introduction to the major concepts in biology including the chemical basis of life, cell theory, energetics, genetics, development, physiology, behavior, homeostasis and diversity, and evolution and ecology. Lecture three hours, laboratory three hours a week. (staff, Division III)

102. Principles of Biology An examination of the nature of biological systems at a level of detail appropriate for those already familiar with basic concepts of biology as taught in Biology 101. Topics include molecular biology and biochemistry, structure and function of the cell, structure and function of multicellular organisms, development, and population and ecosystems biology. Lecture three hours, laboratory three hours a week. Prerequisites: Biology 101 or permission of instructor. (staff, Division III)

201. Genetics A study of heredity and gene action. Lecture three hours, laboratory four hours a week. Prerequisites: Biology 101, 102 and Chemistry 103, 104. (Kaney, Division III)

202. Neurobiology and Behavior An introduction to the attempt to understand behavior in terms of the nervous system. A brief overview of fundamental principles of nervous system structure is followed by consideration of several topics chosen to illustrate how studies of the nervous system illuminate behavior and studies of behavior contribute to better understanding of the nervous system. Examples cover a wide variety of invertebrate and vertebrate species, including humans.

Biology

Lecture three hours a week. Prerequisites: Biology 101, 102 or permission of instructor. (Grobstein, Division II)

210. Biology and Public Policy A lecture/discussion course on major issues and advances in biology and their implications for public policy decisions. Topics to be discussed include reproductive technologies, genetic screening and gene therapy, environmental health hazards, and euthanasia and organ transplantation. Readings include scientific articles, public policy and ethical considerations, and lay publications. Lecture three hours a week. Prerequisite: one semester of introductory biology or equivalent, or permission of the instructor. (Greif, Division II) *Not offered in 1996-97.*

220. Ecology An introduction to the study of the relationships and interdependencies that influence the distribution, abundance, and character of organisms and communities of organisms. Lecture three hours a week. Prerequisite: introductory biology. (Herzig, Division II)

236. Evolution A lecture/discussion course on the development of evolutionary thought, generally regarded as the most profound scientific event of the nineteenth century, its foundations in biology and geology, and the extent of its implications to many disciplines. Emphasis is placed on the nature of evolution in terms of process, product, patterns, historical development of the theory, and its applications to interpretations of organic history. Lecture three hours a week. Prerequisite: A 100-level science course or permission of instructors. (Gardiner, Saunders, Davis, Yarczower, and staff; cross listed as Geology and Psychology 236)

271. Developmental Biology An introduction to embryology and developmental biology. Topics include gametogenesis, induction and determination, morphogenetic movements, organogenesis, pattern formation, regulation of gene expression, sex determination, and neural and behavioral development. Basic developmental problems are illustrated by consideration of observations on a wide range of organisms. Lecture three hours, laboratory three scheduled hours a week. Prerequisites: Biology 101, 102 or permission of instructor. (Hollyday, Division III)

301. Organismal Biology: Vertebrate Structure A comparative study of major organ systems in different vertebrates. Similarities and differences are considered in relation to organ system function as well as in connection with evolutionary relationships among vertebrate classes. Laboratories include dissection, demonstrations, films, and an introduction to histological technique. Two three-hour lecture/laboratories a week. Prerequisites: Biology 101, 102 or equivalent, one 200-level biology course, and permission of the instructor. (Gardiner)

303. Animal Physiology An introduction to the study of animal function; physical and chemical processes in tissues, organs, and organ systems which form the basis of the function of the organism. Homeostasis, control systems, and the structural bases of function are emphasized. Lecture three hours, laboratory three hours a week. Prerequisites: Biology 101, 102, Chemistry 103, 104, or permission of instructor. (Brodhuehrer) *Not offered in 1996-97.*

304. Nervous System Structure and Function A comprehensive introduction to the structure and function of the nervous system. Basic cellular processes, mechanisms of interaction between cells, and principles of organization of the complex assemblies of cells displayed in the vertebrate brain are considered in lectures and laboratory exercises. The latter also provide an introduction to neurophysiological and neuroanatomical methods. Lecture three hours, laboratory three hours a week. Prerequisites: Biology 101, 102, 202, and Chemistry 103, 104. (Brodfehrer)

306. Molecular Genetics A seminar focusing on the various mechanisms involved in the regulation of gene expression, including protein-DNA interactions, DNA and RNA splicing, DNA transposition, and RNA and protein processing. One two-hour meeting per week. Prerequisites: Biology 201 and introductory chemistry. (Kaney) *Not offered in 1996-97.*

307. Nervous System Structure: Advanced Topics A seminar course on current issues in the analysis of nervous system structure. Discussion based on readings from the primary literature. Topics vary from year to year. One three-hour discussion a week. (Hollyday)

308. Experimental Approaches to Ecology and Behavior An introduction to experimental approaches to understanding the ecological relationships between and behavior of organisms. Lectures include advanced topics in ecology and behavior and material on the development of hypotheses, experimental design, and statistical analyses. Laboratories involve individual and group projects to conduct experiments in the laboratory and in the field settings on campus or in nearby areas, such as Swarthmore's Crum Creek Reserve. Students must be willing to work outside in rainy or muddy conditions. Three hours of lecture a week, three hours of scheduled lab a week. Additional self-scheduled hours required. One weekend field trip. Prerequisites: Biology 220 and permission of instructor. (Herzig)

309. Biological Oceanography A comprehensive examination of the principal ecosystems of the world's oceans, emphasizing the biotic and abiotic factors that contribute to the distribution of marine organisms. A variety of marine ecosystems are examined, including rocky intertidal, estuarine, open ocean and deep sea hydrothermal vents, and hydrocarbon seeps, with an emphasis on the distinctive characteristics of each system and the assemblage of organisms associated with each system. Lecture three hours, laboratory three hours a week. One required field trip and other occasional field trips as allowed for by scheduling. Prerequisites: Biology 101, 102, and one 200-level science course, or permission of the instructor. (Gardiner) *Not offered in 1996-97.*

322. Neurochemistry A seminar course on selected topics concerning the nervous system, stressing chemical and biochemical approaches. Topics include the composition and function of myelin in central versus peripheral nervous system; the chemistry and biology of nerve growth factor, neurotransmitter metabolism and interactions with receptors, roles of other neuromodulators and receptors in neural function. Prerequisites: Biology 341 or 343 and permission of instructor. (Prescott) *Not offered in 1996-97.*

Biology

329. Elements of Mathematical Biology (Carr; cross listed as Mathematics 329)

336. Evolutionary Biology: Advanced Topics A seminar course on current issues in evolution. Discussion based on readings from the primary literature. Topics vary from year to year. One three-hour discussion a week. Prerequisite: Biology 236 or permission of instructor. (Gardiner, Saunders, staff; cross listed as Geology 336)

340. Cell Biology A lecture course with laboratory emphasizing current knowledge in cell biology. Among topics discussed are cell membranes, cell surface specializations, cell motility and the cytoskeleton, regulation of cell activity, energy generation, and protein synthesis. Laboratory experiments are focused on studies of cell structure, making use of techniques in cell culture and immunocytochemistry. Lecture three hours, laboratory four hours a week. Prerequisites: Biology 201 or 271; Chemistry 211, 212 (may be taken concurrently); or permission of instructor. One semester of biochemistry is recommended. (Greif)

341. Introduction to Biochemistry A lecture course on the structure, chemistry, and function of amino acids, proteins, lipids, polysaccharides, and nucleic acids; enzyme kinetics; metabolic relationships of carbohydrates, lipids, and amino acids and the control of various pathways; protein synthesis. Lecture three hours, laboratory four hours a week. Prerequisite: Chemistry 212. (Prescott)

343. Introduction to Biochemistry A lecture course on the structure, chemistry, and function of amino acids, proteins, lipids, polysaccharides, and nucleic acids; enzyme kinetics; metabolic relationships of carbohydrates, lipids, and amino acids and the control of various pathways; protein synthesis. Lecture three hours, library project. Prerequisite: Chemistry 212. (Prescott)

345. Advanced Biochemistry: Receptors A seminar course dealing with the chemistry of receptors and the processes they mediate. One two-hour discussion a week. Prerequisite: Biology 341. (Prescott)

355. Topics in Genetics A seminar course devoted to readings and discussions from the current research literature covering areas of current importance and interest in the field of genetics. A single topic will be covered each semester and will include such topics as the genetic components of behavior, the inheritance of acquired characteristics, and the role of DNA rearrangements in regulation of gene expression. One two-hour discussion a week. Prerequisite: Biology 201. (Kaney)

359. Topics in Cell Biology A seminar course on current issues in cell biology. Discussions based on readings from the current literature. Topics vary from year to year. One two-hour discussion a week. Prerequisites: Biology 340 and 341 or 343, and permission of instructor. (Greif) *Not offered in 1996-97.*

364. Developmental Neurobiology A seminar course on major topics in developmental neurobiology. Topics include cell migration, cell death, cell-cell recognition, axon guidance, and synapse formation. Readings from the current literature are emphasized. Prerequisites: Biology 201 or

271; Chemistry 211, 212, and permission of instructor. (Greif) *Not offered in 1996-97.*

367. Computational Models of Biological Organization The organization of living systems in general reflects a web of interactions among large numbers of diverse elements. In recent years, it has become possible to develop intuitions and gain insights into such organization by using computers to explore the properties which emerge from various kinds of interactions among various elements. In this course, students are introduced to some existing computer based simulations of living systems, and use them to further develop their own insights into biological organization. One three-hour laboratory session a week with an expectation of at least three additional hours a week on the computer. Prerequisites: prior biology coursework above the introductory level; permission of instructor. (Grobstein)

371. Developmental Biology: Advanced Topics A seminar course on current issues in developmental biology. Discussion based on readings from the primary literature. Topics vary from year to year. One three-hour discussion a week. Prerequisite: Biology 271 or permission of instructor. (Hollyday) *Not offered in 1996-97.*

380. Topics in Cellular and Organismal Physiology A seminar course on current issues in cellular and organismal physiology. Discussion based on readings from primary literature. One three-hour discussion a week. Prerequisites: Biology 202, and either Biology 303 or 304, or permission of the instructor. (Brodfehrer)

396. Topics in Neural and Behavioral Science A seminar course dealing with current issues in the neural and behavioral sciences. It provides advanced students concentrating in neural and behavioral sciences with an opportunity to read and discuss in depth seminal papers which represent emerging thought in the field. In addition, students are expected to make presentations of their own research. (Grobstein; cross listed as Psychology 396)

401. Supervised Research in Neural and Behavioral Sciences Laboratory or library research under the supervision of a member of the Neural and Behavioral Sciences committee. Required for those with the concentration. Prerequisite: permission of the instructor. (staff)

403. Supervised Laboratory Research in Biology Laboratory research under the supervision of a member of the department. Prerequisite: permission of instructor. (staff)

405. Supervised Library Research in Biology Library research under the supervision of a member of the department. Prerequisite: permission of instructor. (staff)

Biology

Courses which may be offered by current faculty, as student interest and circumstances permit:

- 305. Neurobiology and Behavior: Advanced Topics
- 365. Neurobiology and Behavior: Developmental Issues
- 366. Theories of Biological Organization

Graduate seminars in the Department of Biology are open to qualified undergraduates with the permission of the department.

Haverford College offers the following courses in biology, some of which are half-semester courses:

- 145b. The Cellular Basis of Life
- 200. Cell Structure and Function
- 217b. Biological Psychology
- 221a. The Primate Origins of Society
- 247a. Human Genetics, Ethics and Public Policy
- 248a. Disease and Discrimination
- 252a. Women, Medicine and Biology
- 300a. Electron and Fluorescence Microscopy and Immunology
- 300b. Biochemistry: Proteins and Nucleic Acids
- 301d. Molecular and Cellular Genetics
- 303h. Structure and Function of Macromolecules
- 304g. Metabolic Biochemistry and Biosynthesis of Macromolecules
- 305g. Regulation
- 307e. Developmental Biology
- 352d. Cellular Immunology
- 354e. Biomembranes
- 358h. Developmental Genetics
- 400. Senior Research Tutorial in Covalent Interactions Between Protein Molecules
- 401. Senior Research Tutorial in Structure and Function of RNA of Ribosomes
- 402. Senior Research Tutorial in Meiosis
- 404. Senior Research Tutorial in Macromolecular Transport
- 405. Senior Research Tutorial in Gene Expression
- 406. Senior Research Tutorial in Immunology
- 407. Senior Research Tutorial on Cell Motility and the Cytoskeleton
- 493c. Interdisciplinary Examinations of Biologically Significant Research
- 499j. Senior Departmental Studies

CHEMISTRY

Professors:

Frank B. Mallory, Ph.D., *W. Alton Jones Professor*
Charles S. Swindell, Ph.D.

Associate Professors:

Sharon J. Nieter Burgmayer, Ph.D., *Chairman*
Michelle M. Francel, Ph.D. (on leave, Semester I, 1996-97)

Assistant Professor:

Susan A. White, Ph.D.

Lecturer:

Lisa E. Chirlian, Ph.D.

Senior Laboratory Lecturers:

Krynn DeArman Lukacs, Ph.D., *Major Adviser*
Maryellen Nerz-Stormes, Ph.D.

The undergraduate course program in chemistry is designed to give students a sound background in both theoretical and practical aspects of four main fields: organic chemistry, physical chemistry, inorganic chemistry, and biological chemistry. Laboratory work is emphasized to provide students with modern training in experimental skills and analytical techniques. The core program, consisting of courses at the 100 level and 200 level, covers fundamental principles of chemistry. This core program provides the basis for advanced work at the 300 level and 400 level, in which students encounter contemporary problems in chemistry and the progress that is being made toward solving them.

The requirements for a major in chemistry include the following ten courses (or their equivalents): Chemistry 103 (or 101), 104, 211, 212, 221, 222, 231, 242, and any two courses selected from among Chemistry 311, 312, 321, 332, 345 or any chemistry course at the 500 level. Other required courses are Mathematics 101, 102, and 201, and Physics 107 and 122 (or their equivalents). All A.B. recipients who complete this program are certified by the American Chemical Society as having met that society's high standards for an undergraduate degree in chemistry.

Majors are encouraged to take additional 300-level (or 500-level) courses and 400-level research in chemistry beyond the requirements of the standard program. Additional courses in mathematics and other natural sciences can contribute breadth to the chemistry major. Examples of interdisciplinary courses related to chemistry are geochemistry (Geology 301 and 302) and molecular genetics (Biology 306). A reading knowledge of German can be valuable for work in chemistry past the undergraduate level.

A typical schedule for the standard chemistry major involves taking Chemistry 103 (or 101) and Chemistry 104 in the freshman year, Chemistry 211 and 212 and Physics 107 and 122 in the sophomore year, Chemistry 221, 222, 231, and 242 in the junior year, and appropriate advanced courses in the senior year. The three required mathematics courses, Mathematics 101, 102, and 201 (or their equivalents), normally should be completed prior to the junior year.

Chemistry

Students may receive an A.B. degree in chemistry with a concentration in biological chemistry by fulfilling the requirements for a major in chemistry, including Chemistry 345 as one of the two required advanced courses, and also by completing two semesters of work in biology at or above the 200 level. The two biology courses chosen to fulfill this requirement must be approved by the major adviser.

The A.B. degree with honors in chemistry will be awarded to students who complete the major in chemistry and also meet the following further requirements: two semesters of supervised research in chemistry (Chemistry 403) with a grade of at least 3.3 in each semester; the submission of an acceptable paper describing the results of that research; an additional two semesters of 300-level (or 500-level) work in chemistry (or, with consent of the department, appropriate work at or above the 200 level in related fields) beyond the two advanced courses required for the standard chemistry major; and a grade point average, calculated at the end of the senior year, of at least 3.4 in all chemistry courses taken.

A student may qualify for a minor in chemistry by completing a total of six courses in chemistry, one of which must be either Chemistry 221 or 222. Biology 341 may be counted as one of the required six courses. At least two of the six courses must be taken at Bryn Mawr College.

To earn an M.A. degree in chemistry in the College's A.B./M.A. program, a student must complete the requirements for an undergraduate chemistry major and also must complete six units of graduate level work in chemistry. Of these six units, as many as two units may be 300-level undergraduate courses taken for graduate credit (these same two courses may be used to fulfill the major requirements for the A.B. degree), at least two units must be 500-level graduate seminars, and two units must be 700-level graduate research leading to the submission of an acceptable M.A. thesis. Other requirements are the demonstration of skill in computing or in a foreign language, a written final examination covering material in the candidate's special field, and an oral examination.

101. Introduction to Chemistry For students with little previous work in chemistry. Chemistry 101 covers the same topics as Chemistry 103, but with extra class hours to develop fundamental skills. Laboratory identical to Chemistry 103. Lecture five hours, laboratory three hours a week. Prerequisite: math readiness or permission of instructor. (Chirlian, Lukacs, Division IIL)

103. General Chemistry For students with some background in chemistry. Section 1 for freshmen only, Section 2 for all other students. The atomic theory of matter; stoichiometry of chemical reactions; properties of gases, liquids, and solids; phase changes; the electronic structure of atoms; chemical bonding; introduction to thermodynamics; the chemistry of representative nonmetallic elements. Lecture three hours, laboratory three hours a week. Prerequisite: math readiness or permission of instructor. (White, staff, Lukacs, Division IIL)

104. General Chemistry A continuation of either Chemistry 103 or Chemistry 101. Section 1 for freshmen only, Section 2 for all other

students. Ionic equilibria; introduction to chemical kinetics, electrochemistry, and radiochemistry; the chemistry of representative metallic elements. Lecture three hours, laboratory three hours a week. Prerequisite: Chemistry 103 or 101. (Burgmayer, Chirlian, Lukacs, Division IIL)

211. Organic Chemistry An introduction to the principles of organic chemistry, including synthetic and spectroscopic techniques. Lecture four hours, laboratory five hours a week. Prerequisite: Chemistry 104. (Mallory, Nerz-Stormes, Division IIL)

212. Organic Chemistry A continuation of Chemistry 211. Lecture four hours, laboratory five hours a week. Prerequisite: Chemistry 211. (Swindell, Nerz-Stormes, Division IIL)

221. Physical Chemistry Introduction to quantum theory and spectroscopy, classical thermodynamics, and the first, second, and third laws. Lecture three hours, laboratory five hours a week. Prerequisites: Chemistry 104 and Mathematics 102. Corequisites: Chemistry 211, Physics 107 and Mathematics 201. (Chirlian, Division IIL)

222. Physical Chemistry A continuation of Chemistry 221. Modern thermodynamics, with application to phase equilibria, interfacial phenomena, and chemical equilibria; statistical mechanics; chemical dynamics. Kinetic theory of gases; chemical kinetics. Lecture three hours, laboratory five hours a week. Prerequisite: Chemistry 221. Corequisite: Chemistry 212 and Physics 122. (Francel, Division IIL)

231. Inorganic Chemistry Bonding theory; structures and properties of ionic solids; symmetry; crystal field theory; structures, spectroscopy, stereochemistry, reactions, and reaction mechanisms of coordination compounds; acid-base concepts; descriptive chemistry of main group elements. Lecture three hours, laboratory five hours a week. Corequisite: Chemistry 221. (Burgmayer, Division IIL)

242. Biological Chemistry The structure, chemistry, and function of amino acids, proteins, lipids, polysaccharides, and nucleic acids; enzyme kinetics; metabolic relationships of carbohydrates, lipids, and amino acids, and the control of various pathways; protein synthesis. Lecture three hours, laboratory five hours a week. Prerequisite: Chemistry 212 and 221. Corequisite: Chemistry 222. (White, Division IIL)

311. Advanced Organic Chemistry Reaction mechanisms and structure-reactivity relationships of synthetically important reactions. Lecture three hours a week. Prerequisites: Chemistry 212 and 222. (Swindell)

312. Advanced Organic Chemistry Principles of physical organic chemistry with emphasis on reaction mechanisms, reactive intermediates, and stereochemistry. Lecture three hours a week. Prerequisites: Chemistry 212 and 222. (Mallory)

321. Advanced Physical Chemistry The application of quantum chemistry to chemical bonding and molecular spectroscopy. Lecture three hours a week. Prerequisites: Chemistry 212 and 222 or permission of the instructor. (Francel)

Chemistry

332. Advanced Inorganic Chemistry A) Organometallic chemistry including discussion of structure and bonding, reaction types, and catalysis; B) Bioinorganic chemistry illustrating structural, enzymatic, and pharmaceutical applications of transition metals in biological chemistry. Lecture three hours a week. Prerequisite: Chemistry 231. (Burgmayer)

345. Advanced Biological Chemistry Physical biochemistry of proteins and nucleic acids; spectroscopic and other techniques for biopolymers; allosteric effects and cooperativity; immunology. Lecture three hours a week. Prerequisite: Chemistry 222 and 242. (White)

361/362. Directed Readings in Chemistry on the Internet Students at Bryn Mawr and other colleges and universities world-wide read a common set of papers on a selected topic. These readings are discussed via the Internet by the entire group of participating students and faculty. The course is coordinated by the American Chemical Society's Division of Chemical Education and may not be offered every semester. Prerequisite: Chemistry 221/223, 231, 242, and permission of the department.

403. Supervised Research in Chemistry Many individual research projects are available, each under the supervision of a member of the faculty. Laboratory at least ten hours a week. Prerequisite: permission of faculty supervisor. (Burgmayer, Francl, Mallory, Swindell, White)

Graduate seminars in chemistry are open to qualified undergraduates with the permission of the department.

Haverford College offers the following courses in chemistry:

- 100a. General Chemistry I
- 101b. General Chemistry II
- 121a. Organic Chemistry I
- 151b. Case Studies in Chemistry
- 205a. Advanced General Chemistry
- 221b. Organic Chemistry II
- 256b. Environmental Chemistry
- 301a/302b. Lab in Chemical Structure and Reactivity
- 304a. Physical Chemistry I: Thermodynamics and Kinetics
- 305b. Physical Chemistry II: Quantum Chemistry
- 320b. Inorganic Chemistry
- 351. Topics in Biophysical Chemistry
- 352. Enzymatic Reaction Mechanisms
- 361. Research Tutorial in Physical Chemistry
- 363. Research Tutorial in Organic Chemistry

CLASSICAL AND NEAR EASTERN ARCHAEOLOGY

Professors:

Stella Miller-Collett, Ph.D., *Chairman*

Richard S. Ellis, Ph.D.

James C. Wright, Ph.D., *Dean, Graduate School of Arts and Sciences*

Assistant Professor:

A. A. Donohue, Ph.D., *Major Adviser*

Reinhard Bernbeck, Ph.D.

Lecturers:

Jean MacIntosh Turfa, Ph.D.

The major courses provide an extensive survey of the ancient Classical and Near Eastern civilizations. Study focuses on the material remains of these civilizations and issues in their interpretation.

Major requirements: The major requires a minimum of ten courses. Core requirements are Archaeology 101 and 102 and one semester of the senior conference. Additional requirements are determined by coursework within the student's area(s) of concentration, selected in consultation with the major adviser within the areas of Near Eastern and Mediterranean archaeology. One course in history in the area of concentration is required (242; History 205, History 207, History 208). Interdisciplinary areas of concentration are Prehistoric archaeology and Environmental Studies, for which students will be advised of appropriate courses in consultation with the major adviser. Additional coursework in subjects related to archaeology is offered in Hebrew, Greek, Latin, Classical Studies, History of Art, and Anthropology.

Each student's course of study to meet major requirements will be determined in consultation with the undergraduate major adviser in the spring semester of the sophomore year. Students considering majoring in the department are encouraged to take the introductory courses early in their undergraduate career and should also seek advice from departmental faculty. Students who are interested in interdisciplinary concentrations or in spending a junior year abroad are strongly advised to seek assistance in planning their major early in their sophomore year.

Minor Requirements: The minor requires six courses. Core requirements are Archaeology 101 and 102 in addition to four other courses selected in consultation with the major adviser.

Languages: Majors concentrating in classical archaeology and who have any intention of pursuing graduate study in the discipline should take a minimum of two years each of Greek and Latin. Those concentrating in Near Eastern or Egyptian may take appropriate ancient languages at the University of Pennsylvania, such as Middle Egyptian, Akkadian and Sumerian. Any student considering graduate study in archaeology should study French and German.

Classical and Near Eastern Archaeology

Fieldwork: The department strongly encourages students to gain fieldwork experience and assists them in getting positions on field projects in North America and overseas. From time to time the department carries out its own field projects, and undergraduates may be invited to participate in them.

Study Abroad: Study abroad is encouraged if the program is approved by the department. Credit for courses taken is given on a case by case basis. Normally credit will not be given for courses that are ordinarily offered by the department.

Departmental Honors: A year-long research project, culminating in a lengthy paper written under the supervision of a member of the department, is required to be considered for honors. Students can register for honors—a unit of independent study (403) each semester of the senior year—only with approval of the department and the supervising faculty member. Honors are granted if the final paper is considered of superior quality (3.3 or above).

101. Introduction to Egyptian and Near Eastern Archaeology A historical survey of the archaeology and art of the ancient Near East, Egypt and the prehistoric Aegean. Three hours of class, one hour of special topics each week. (Ellis, Division III).

102. Introduction to Greek and Roman Archaeology A historical survey of the archaeology and art of Greece, Etruria and Rome. Three hours of class, one hour of special topics each week. (Miller-Collett, Division III).

201. Preclassical Greek Art and Archaeology The art and archaeology of Greece and its Mediterranean neighbors between the end of the Bronze Age and the Persian invasion (ca. 1100 - 480 B.C.E.), the period which saw the rise of the city-state, the introduction of democracy, and the spread of Greek civilization by colonization and trade. The architecture, painting, sculpture, and minor arts will be studied with attention to their historical and cultural contexts. (Donohue, Division III)

202. Classical Greek Art and Archaeology The art and archaeology of Greece and its Mediterranean neighbors between the Persian invasion of 480 B.C.E. and the rise of Macedonia in the mid-fourth century B.C.E., the period which saw the rise of Athens, the achievements of the Periclean democracy, and the dissolution of Athenian power in the wake of the Peloponnesian War. The architecture, painting, sculpture, and minor arts will be studied with attention to their historical and cultural context. (Donohue, Division III) *Not offered in 1996-97.*

204. Iron Age and Etruscan Art and Archaeology The art and archaeology of peninsular Italy and its archipelago from the Iron Age down to the period of the Early Republic of Rome, with special focus on the culture of the Etruscans and their interaction with the Greeks and Romans. (Turfa, Division III) *Not offered in 1996-97.*

212. Art and Archaeology of the Hellenistic World An examination of the material culture of the extended Mediterranean region, with special attention to the role of the figural arts in the political and cultural transformation of the classical world. (Donohue, Division III)

221. Minoan and Mycenaean Archaeology The evolution of the pre- and protohistoric societies of Crete and Mainland Greece during the second millennium B.C.E. Particular attention is given to the palace sites of Knossos, Mycenae, Pylos, and Troy, and to the interpretative approaches to the archaeological study of the formation of complex societies. (staff, Division III). *Not offered in 1996-97.*

223. Ancient Near Eastern Architecture and Cities Building techniques, forms, and functions of structures, settlements and cities; effects of environment and social structure. (Ellis, Division III; cross listed as Growth and Structure of Cities 223)

226. Anatolian Archaeology The archaeology and cultural history of Anatolia (modern-day Turkey) from prehistory to Classical times. An historical and archaeological overview of topography and monuments. Topics include economy, religion, and social systems. (Bernbeck, Division III) *Not offered in 1996-97.*

230. Archaeology and History of Ancient Egypt The cultural, social, and political development of Egypt from the beginning of settled communities in the Nile Valley to the end of the New Kingdom (about 5000 to 1100 B.C.E.), in the contexts both of the African and of the wider Near Eastern contexts. Emphasis will be on the archaeological remains, but will also make use of documentary evidence. (Ellis, Division III). *Not offered in 1996-97.*

232. Ancient Near Eastern History The history of ancient western Asia (Mesopotamia, Anatolia, Syria/Palestine) from the middle of the fourth millennium B.C.E. to the rise of the Persian Empire, emphasizing the written and archaeological sources. Topics include the rise of urbanism and state organization, the development and consequences of literacy, and the degree to which the contributions of different ethnic groups can be distinguished. (Ellis, Division III; cross listed with History 232).

236. Syro-Palestinian Archaeology The archaeology of the Levant and its relationships with surrounding cultures from the Neolithic Period through the end of the Iron Age. Topics include the history of research and focus on the relationships among cultures within the area. (Bernbeck, Division III) *Not offered in 1996-97.*

240. Mesopotamia before 1600 B.C.E. An examination of the development of Sumerian, Babylonian, and Assyrian culture from the origins of village life to the fall of the Old Babylonian Dynasty. After a brief overview of the origins of food production and of Neolithic development, particular attention is paid to the origins of urbanism, writing, long-distance trade, and other characteristics of social complexity; to the Sumerian city-states of the Early Dynastic period and their social, religious, and economic life; to the appearance of other ethnic groups and their effect on cultural development; the founding and the fall of supra-regional empires; and the archaeological evidence for the life and ideologies of the ancient Mesopotamians. (Ellis, Division III)

241. Mesopotamia from 1600 B.C.E. (Ellis, Division III) *Not offered in 1996-97.*

303. Classical Bodies. An examination of the conceptions of the human body evidenced in Greek and Roman art and literature, with emphasis on issues that have persisted in the Western tradition. Topics include the fashioning of male and female; concepts and standards of beauty and their implications; conventions of visual representation; the nude; clothing and its symbolism; the athletic ideal; physiognomy; medical theory and practice; the visible expression of character and emotions; and the formulation of the "classical ideal" in antiquity and later times. (Donohue)

305. Ancient Athens: Monuments and Art Detailed analysis of the monuments, archaeology and art of ancient Athens—the home of such persons as Perikles, Sophocles, and Plato. The course considers the art and monuments of ancient Athens against the historical background of the city and is a case study in understanding the role of archaeology in reconstructing the life and culture of the Athenians. (Miller-Collett; cross listed as Growth and Structure of Cities 305) *Not offered in 1996-97.*

315. Cities and Sanctuaries of the Ancient Mediterranean An exploration of urban models, with reference to the types of settlement and sanctuary encountered, with ethnic variations, throughout the Mediterranean basin following the Bronze Age up to the Roman Empire. Models include old cities developing from agglomerations of villages (Corinth, Tarquinii) or as fortified acropolis sites (Athens, Tyre, Sidon); colonies initiated as emporia/commercial enterprises sponsored by multiple ethnic groups (Pithekoussai) or by a "mother city" and characterized by state ritual, formal town planning, and zoning (Syracuse, Alexandria, Marzabotto). Sanctuaries are analyzed according to their different cults, such as that of Demeter and Persephone at Corinth, and international shrines such as Delphi and Olympia, as well as non-western forms, such as Phoenician *tophet*. Models developed in modern scholarship are examined critically with reference to the ancient literary sources and to recent archaeological finds. (Turfa; cross listed as Growth and Structure of Cities 315)

324. Roman Architecture (Scott; cross listed as Growth and Structure of Cities and History of Art 324) *Not offered in 1996-97.*

331. Methods and Techniques of Pottery Analysis Pottery as a fundamental means of establishing the relative chronology of archaeological sites and of understanding past human behavior. Included are theories, methods and techniques of pottery description, analysis, and interpretation. Topics include typology, seriation, ceramic characterization, production, function, exchange, and the use of computers in pottery analysis. Laboratory work on pottery in the department collections. Prerequisite: permission of the instructor. (Bernbeck; cross listed as Anthropology 331) *Not offered in 1996-97.*

351. The Phoenicians Study of the origins of the Phoenicians in the Late Bronze-early Iron Age and their dispersal throughout the Mediterranean, with special attention to the interactions in the West through the period of the Punic Wars. Prerequisite: 204, 237 or permission of the instructor. (Turfa) *Not offered in 1996-97.*

398. Senior Conference A weekly seminar on common topics with assigned readings and oral and written reports. (Miller-Collett)

403. Independent supervision (staff)

The department of Classical and Near Eastern Archaeology sponsors the following Classical Studies courses. These courses should be of interest to Archaeology students.

Classical Studies 110. The World through Classical Eyes A survey of the ways in which the ancient Greeks and Romans perceived and constructed their physical and social world. The evidence of ancient texts and monuments will form the basis for exploring such subjects as cosmology, geography, travel and commerce, ancient ethnography and anthropology, the idea of natural and artificial wonders, and the self-definition of the classical cultures in the context of the *oikoumene*, the "inhabited world." (Donohue, Division III) *Not offered in 1996-97.*

Classical Studies 191. The World of the Greek Heroes: Icon and Narrative An introduction to Greek mythology with emphasis on its visual and literary manifestations. It considers the ways in which the Greeks expressed their beliefs and outlook on life in mythical terms and investigates different approaches to studying mythology. (Miller-Collett and Hamilton, Division III) *Not offered in 1996-97.*

CLASSICAL LANGUAGES

Coordinators:

Gregory W. Dickerson, Ph.D., Professor of Greek

Russell T. Scott, Ph.D., *Doreen C. Spitzer Professor of Latin and Classical Studies*

The major in classical languages is designed for the student who wishes to divide her time between the two languages and literatures.

In addition to the Classics Senior Seminar, the requirements for the major are eight courses in Greek and Latin, including at least two at the 200 level in one language and two at the 300 level in the other, and two courses in ancient history and/or classical archaeology. There are three final examinations: sight translation from Greek to English, sight translation from Latin to English, and general history and literature of Greece and Rome. The Classics Senior Seminar is a full-year course, the first term of which is devoted to various fields of Classics (e.g., religion, philosophy, law, social history, literary history), while in the second term students write a long research paper and then present their findings to the group.

CLASSICAL STUDIES

Coordinators:

Gregory W. Dickerson, Ph.D., *Professor of Greek*

Russell T. Scott, Ph.D., *Doreen C. Spitzer Professor of Latin and Classical Studies*

The major in classical studies provides a broad yet individually structured background for students whose interest in the ancient classical world is general and who wish to lay the foundation for more specialized work in one or more particular areas.

The requirements for the major are, in addition to the Classics Senior Seminar, ten courses, including at least one interdisciplinary course (Classical Studies 110, 150, 153, 160, 190, 191, 211, 270), at least two courses at the intermediate level or above in either Greek or Latin, and at least five field-specific courses from among the following: Classical Studies/History 205-8; Classical and Near Eastern Archaeology 102, 201, 202, 212, 251, 303, 305, 315, 324; Philosophy 101, 236, or their Haverford equivalents. At least two of the five field-specific courses must be in Greek or Roman history. The Classics Senior Seminar is a full-year course, the first term of which is devoted to various fields of Classics (e.g., religion, philosophy, law, social history, literary history), while in the second term students write a long research paper and then present their findings to the group.

110. The World through Classical Eyes A survey of the ways in which the ancient Greeks and Romans perceived and constructed their physical and social world. The evidence of ancient texts and monuments will form the basis for exploring such subjects as cosmology, geography, travel and commerce, ancient ethnography and anthropology, the idea of natural and artificial wonders, and the self-definition of the classical cultures in the context of the *oikoumene*, the "inhabited world." (Donohue, Division III) *Not offered in 1996-97.*

150. Scapegoats, Outlaws, and Sinners in Fifth-century Athens A study of marginal figures in Athenian literature, religion, and politics, emphasizing the context, causes, and effects of the profanation of the Eleusinian mysteries in 415 B.C. and the trials for impiety of Andocides and Socrates in 400 and 399 B.C., and including a survey of the dramatic literature of the period. Topics include the "holy man," once polluted, now powerful; impiety trials; ostracism; beggars and exiles; pollution; sycophants and the court system. Authors include Sophocles, Euripides, Aristophanes, Thucydides, Xenophon, Lysias, and Andocides. (Hamilton, Division III)

153. Roman Women An examination of the life, activities, and status of Roman women-elites and non-elites from the Republic into late antiquity, largely through primary materials (in translation): technical treatises (especially gynecological), legal texts, inscriptions, coins, and any number of literary sources, both poetry and prose (with an emphasis on women's writing). (Brennan, Division III)

160. Reading Greek Tragedy A survey of Greek tragedy introducing students to the major works of Aeschylus, Sophocles, and Euripides and

at the same time to some useful interpretative methods currently practiced—Aristotelian, psycho-analytical, structuralist, and feminist. (Hamilton, Division III) *Not offered in 1996-97.*

190. Life, Death and the Gods in the Classical World An exploration, in representative texts from fifth-century Athens and first-century Rome, of such topics as sacrifice, prophecy, ancestor worship, afterlife, and the gods as they affected the community and the individual at a critical period in the history of these societies. Guest speakers introduce relevant, comparative material from Near Eastern religions. Readings include Euripides' *Hippolytus* and *Alcestis*, Aristophanes' *Birds* and *Frogs*, selections from Lucretius' *On the Nature of Things*, Cicero's writings on religion, Vergil's *Aeneid*, and Livy's *Roman History*. (Hamilton/Scott, Division III) *Not offered in 1996-97.*

191. The World of the Greek Heroes: Icon and Narrative A comparison of the representations of the major gods and heroes in Greek sculpture, vase painting, and poetry in terms of content, context, function, and syntax. (Hamilton, Miller-Collett, Division III) *Not offered in 1996-97.*

205. Ancient Greece A study of Greece down to the end of the Peloponnesian War (404 B.C.), with a focus on constitutional changes from monarchy through aristocracy and tyranny to democracy in various parts of the Greek world. Emphasis on learning to interpret ancient sources, including historians (especially Herodotus and Thucydides), inscriptions and archaeological and numismatic materials. Particular attention is paid to Greek contacts with the Near East; constitutional developments in various Greek-speaking states; Athenian and Spartan foreign policies; and the "unwritten history" of non-elites. (Brennan, Division III; cross listed as History 205)

206. Society, Medicine, and Law in Ancient Greece An introduction to the social context of Greek history in the Classical and Hellenistic periods. Topics include the Greek household, occupations, slavery, literacy and education, sexuality, ancient medical practices, and the working of law in the *polis*. Ancient sources are emphasized, including orators, technical writers, inscriptions, and papyri. (Brennan, Division III; cross listed as History 206) *Not offered in 1996-97.*

207. Roman History A study of Rome from its origins to the end of the Republic with special emphasis on the rise of Rome in Italy, the Hellenistic world, and the evolution of the Roman state. Ancient sources, literary and archaeological, are emphasized. (Scott, Division III; cross listed as History 207)

208. The Roman Empire Imperial history from the principate of Augustus to the House of Constantine with focus on the evolution of Roman culture as presented in the surviving ancient evidence, both literary and archaeological. (Scott, Division III; cross listed as History 208) *Not offered in 1996-97.*

211. Masks, Madness, and Mysteries in Greek Religion A review of the ancient evidence, both literary and archaeological, pertaining to the cults of Demeter and Dionysus practiced in ancient Greece, followed by an examination of various modern theories which have been proposed to

illuminate the significance of the rites. (Dickerson, Division III) *Not offered in 1996-97.*

270. Classical Heroes and Heroines An examination of the model and evolution of classical heroism and the different types of heroism available to men and women. Among the issues considered are: epic, tragic, and modern forms of heroism; the relationships of heroes and heroines to their communities and families; the dangers heroes and heroines may pose to themselves, their communities, and families; the personal costs of heroism and who pays those costs; why women are so rarely allowed to be heroic. Readings include: *Gilgamesh*, the *Iliad* and *Odyssey*; Sophocles' *Oedipus Rex* and *Antigone*; Euripides' *Alcestis* and *Medea*; and Vergil's *Aeneid*. Readings are complemented by various films, including: *Kagamusha*, *Blade Runner*, *Terminator 2*, *Aliens*, *High Noon*, and *Unforgiven*. (Gaisser, Division III) *Not offered in 1996-97.*

COMPARATIVE LITERATURE

Nancy Dersofi, Ph.D., *Professor of Italian and Comparative Literature and Co-Chairman*, at Bryn Mawr College

Julia Epstein, Ph.D., *Barbara Riley Levin Professor of Comparative Literature and Professor of English and Co-Chairman*, at Haverford College

Advisory Committee at Bryn Mawr College:

Carol L. Bernstein, Ph.D., *Professor of English and Comparative Literature and Fairbank Professor in the Humanities* (on leave, 1996-97)

Catherine Lafarge, Ph.D., *Professor of French*

Elizabeth C. Allen, Ph.D., *Associate Professor of Russian and Comparative Literature*

Azade Seyhan, Ph.D., *Associate Professor of German and Comparative Literature*

Advisory Committee at Haverford College:

J. David Dawson, Ph.D., *Associate Professor of Religion and Comparative Literature*

Deborah Roberts, Ph.D., *Associate Professor of Classics and Comparative Literature*

Michael Sells, Ph.D., *Professor and Chairman of Religion*

Affiliated Faculty:

Including, but not limited to, faculty members from the Bryn Mawr College and/or Haverford College Departments of: Africana Studies, Anthropology, Classics, East Asian Studies, English, French, German, History of Art, Italian, Music, Philosophy, Religion, and Spanish

The study of comparative literature situates literature in an international perspective, examines connections among literary history, literary criticism, critical theory, and poetics, and works toward an understand-

ing of the sociocultural functions of literature. Interpretive methods from other disciplines that interrogate cultural discourses also play a role in the comparative study of literature; among these are anthropology, philosophy, history, religion, classical studies, Africana studies, gender studies, and cultural studies, as well as other arts.

Comparative literature students are required to have a reading knowledge of at least one foreign language adequate to the advanced study of literature in that language. Some comparative literature courses may require reading knowledge of a foreign language as a prerequisite for admission. Students considering graduate work in comparative literature should also study a second foreign language.

Requirements for the comparative literature major are: Comparative Literature 200: Introduction to Comparative Literature (normally taken in the sophomore year); six literature courses at the 200 level or above, balanced between two literature departments (of which English may be one) — at least two of these (one in each national literature) must be at the 300 level or above, or its equivalent as approved in advance by the adviser; one course in critical theory; two electives; Comparative Literature 398 and 399: Senior Seminar in Comparative Literature.

Requirements for the minor are: Comparative Literature 200 and 398, plus four additional courses: two each in the literature of two languages. At least one course of the four must be at the 300-level. Students who minor in Comparative Literature are encouraged to choose their national literature courses from those with a comparative component.

Both majors and minors are encouraged to work closely with the chairs and members of the advisory committee in shaping their programs.

Students who, in the judgment of the advisory committee, have done distinguished work in their courses and in the senior seminar, will be considered for departmental honors.

200b. Introduction to Comparative Literature An introduction to comparative critical methodologies in an international framework. (Epstein, Division III)

245. Women's Narratives on Modern Migrancy, Exile, and Diaspora A focus on reconfigurations of linguistic, cultural, and national memory in women's writing on migrancy, exile, and displacement within and outside a geographical map. Through a study of autobiographical, literary, and theoretical texts written in a language not their own by women writers of the United States, France, and Germany, the course elevates the critically transformative stage of "writing outside the nation." (Seyhan, Division III; cross listed as Anthropology and Growth and Structure of Cities 246)

398a. Advanced Study of Comparative Literature in the Context of Criticism and Theory (Epstein)

399. Senior Seminar Advanced study of comparative literary poetics, including oral and written presentations of a senior project and a comprehensive oral examination. (Bernstein, Seyhan)

Comparative Literature

Comparative Literature courses at Bryn Mawr include:

- 206. **Theories of Reading** (Hedley; cross listed as English 206)
- 209. **Introduction to Literary Analysis: Philosophical Approaches to Criticism** (Seyhan, Division III; cross listed as German and Philosophy 209) *Not offered in 1996-97.*
- 210. **Women and Opera** (Dersofi, Division III; cross listed as Italian 210)
- 211. **Primo Levi, the Holocaust, and Its Aftermath** (Patrino, Division III; cross listed as Hebrew and Judaic Studies and Italian 211) *Not offered in 1996-97.*
- 222. **Aesthetics** (Krausz, Division III; cross listed as Philosophy 222) *Not offered in 1996-97.*
- 250. **19th-Century Painting in France** (Levine, Division III)
- 257. **Realism: Aesthetics and Ethics** (E. Allen, Division III) *Not offered in 1996-97.*
- 260. **Ariel/Calibán y el discurso americano** (Sacerio-Garí, Division III; cross listed as Spanish 260) *Not offered in 1996-97.*
- 270. **The Picaresque in Spain and Beyond** (Quintero, Division III; cross-listed as Spanish 270) *Not offered in 1996-97.*
- 276. **Modernist Movement, 1900-1925** (Sherman; cross listed with English 276)
- 279. **Modern African Fiction** (Beard, Division III; cross listed as English 279) *Not offered in 1996-97.*
- 283. **The Urban Novel** (Bernstein, Division III; cross listed as English and Growth and Structure of Cities 283) *Not offered in 1996-97.*
- 287. **The Multicultural Novel** (K. Burlin, Division III; cross listed as English 287) *Not offered in 1996-97.*
- 291. **The Poetics and Politics of the Sublime** (Bernstein, Division III; cross listed as English 291) *Not offered in 1996-97.*
- 293. **The Play of Interpretation** (Bernstein, Division III; cross listed as English and Philosophy 293) *Not offered in 1996-97.*
- 294. **Psychoanalysis and Literary Criticism** (Bernstein, Division III; cross listed as English 294) *Not offered in 1996-97.*
- 302. **Le printemps de la parole féminine** (Armstrong, Division III; cross listed as French 302) *Not offered in 1996-97.*
- 320. **Topics in German Literature: Nietzsche & Modern Culture Criticism** (Seyhan; cross listed with German 320)
- 323. **Culture and Interpretation** (Krausz; cross listed as Philosophy 323)
- 325. **Philosophy of Music** (Krausz; cross listed as Philosophy 325) *Not offered in 1996-97.*
- 350. **Voix medievales et echos moderne** (Armstrong; cross listed with French 350)
- 352. **Romanticism and Interpretation** (Bernstein; cross listed as English 352) *Not offered in 1996-97.*
- 354. **Topics in Art Criticism** (Levine; cross listed as History of Art 354)
- 380. **Landscape Art in Cultural Perspective** (Briggs; cross listed as English 380)
- 381. **Post-Apartheid Literature** (Beard; cross listed as English 381)
- 387. **Allegory in Theory and Practice** (Hedley; cross listed as English 387) *Not offered in 1996-97.*

Comparative Literature courses at Haverford include:

- 150a. **Introduction to Folklore**
- 200b. **Introduction to Comparative Literature**

- 205a. Studies in the Spanish American Novel
- 206a. Anthropology of Art
- 211b. The World of Oral Literature
- 212b. Readings in German Intellectual History: French Revolution and German Culture
- 216b. Fiction in the Holocaust
- 220b. Spanish-American Contemporary Literature
- 235a. Spanish American Theater
- 241a. Anthropology of the Mediterranean
- 250. Introduction aux littératures francophones d'Afrique et des Caraïbes
- 251a. "The Woman Question" in the 19th Century: *Madame Bovary*, *The Mill on the Floss*, *Anna Karenina*
- 258b. The Novel
- 262a. Islamic Literature and Civilization
- 289a. Children's Literature
- 290b. History of Literary Criticism, Plato to Shelly
- 301b. Sex and Gender in the Middle Ages
- 310b. Modes of Thought
- 312b. Advanced Topics: Le Maghreb littéraire
- 334b. Gender Dissidence in Hispanic Writing
- 356a. Topics in Autobiography
- 360a. Seminar in Modern Religious Thought
- 385a. Popular Culture, Cultural Identity, and the Arts in Latin America
- 398a. Theories and Methods in Comparative Literature

EAST ASIAN STUDIES

Associate Professors:

- Michael Nylan, Ph.D., *Associate Professor of East Asian Studies and History and Political Science*
Paul J. Smith, Ph.D., *Associate Professor of History*,
at Haverford College

Assistant Professors:

- Matthew Mizenko, Ph.D., *Assistant Professor of East Asian Studies and Director of the Japanese Language Program*, at Haverford College
Haili Kong, Ph.D., *Assistant Professor of Chinese Language and Literature*, at Bryn Mawr and Swarthmore Colleges
Ellen Schattschneider, Ph.D., *Assistant Professor of Anthropology*, at Haverford College

Senior Lecturer:

- Theresa J. Jen, M.A. (on leave, 1996-97)
Chiang Tz'u, M.A., *Senior Lecturer and Director of the Chinese Language Program*, at Bryn Mawr College

Instructors:

- Shizhe Huang, Ph.D., *Instructor of Chinese*, at Haverford College
Yoko Koike, M.S., *Instructor of Japanese*, at Haverford College

Affiliated Faculty:

Including, but not limited to, faculty members from the Bryn Mawr College and/or Haverford College Departments of: Anthropology, Growth and Structure of Cities, History, History of Art, Music, Philosophy, Psychology, and Religion

The bi-college East Asian Studies program offers a major designed for students who wish to study the languages and cultures of East Asia. The objective of the major is to provide students with proficiency in an East Asian language and a multidisciplinary background in the culture associated with it. By graduation, majors will have completed at least three years of study of an East Asian language, and further study is encouraged, especially for students entering academic graduate programs. The bi-college program offers courses in Chinese and Japanese. Korean language courses, along with advanced courses in Chinese and Japanese, are available at the University of Pennsylvania and occasionally at Swarthmore. Students are also urged to take advantage of designated programs (Nankai in Tianjin, U-Mass. in Taiwan, Sophia and I.C.U. in Tokyo) for one or two semesters of study in East Asia, as well as summer programs in the United States or East Asia. Study-abroad programs should be chosen in consultation with the student's language teachers and adviser, who will suggest specific programs for credit.

Students majoring in East Asian Studies are expected to focus their studies in one culture, usually that of the language they study, and to work closely with their advisers in order to construct a coherent course of study. The East Asian Studies major differs from many other area studies majors in urging students to take at least one course in the theory or methodology of the discipline most closely related to the general focus of a student's program. Majors are also required to take the senior conference course and write a thesis.

Requirements for the major are:

(1) Completion of the third-year level of (Mandarin) Chinese or Japanese as taught in the bi-college program, or the equivalent proficiency as certified by the program. Students who entered college with native-level fluency in one East Asian language will be required to begin the study of another.

(2) Six non-language courses with the following stipulations: (a) One of these courses must be an introductory survey course on East Asia (China, Japan, and Korea), preferably East Asian Studies (EAST) 101 or 186; (b) Four courses, chosen in consultation with the faculty adviser, must create a coherent course of study in a cultural area of focus. Two of these courses should be history courses. For example, students focusing on China might select from such courses as EAST 261, 272, and 273, while students of Japan might choose from EAST 261, 264, and 265. (c) One course should focus on a culture *other* than the student's primary culture. Such a course might be on Southeast Asia or Asian America, as well as China, Japan, or Korea.

(3) One course stressing the theoretical and/or methodological foundations of a discipline (e.g., comparative literature, historiography, linguistics, and social, political, or economic theory) that is most relevant to the student's course of study, including the senior thesis. The course will be chosen in consultation with the major adviser and is not ordinarily a course cross listed with East Asian Studies. The thesis topic may well require additional courses in theory or methodology.

(4) The East Asian Studies senior conference course, in the fall semester of the senior year. This course addresses theoretical and methodological issues pertaining to the study of East Asia; it also serves as a thesis writer's seminar.

(5) A senior thesis will be due at the end of the senior conference course. Majors will present an oral defense of their thesis at a later date during the spring term.

Students who enter college without a background in Chinese or Japanese will have to complete the first two years of language study as a prerequisite for the third-year level that is required by the major. Such students are strongly urged to begin their language training in the first year of college.

Honors in East Asian Studies will be awarded by the program faculty on the basis of superior performance in three areas: coursework in major-related courses (including language classes), the senior thesis, and the oral defense. An average of 3.5 in major-related coursework is considered the minimum necessary for consideration for honors. High Honors may be awarded to students showing unusual distinction in meeting these criteria.

A concentration in East Asian Studies is also offered in conjunction with other majors, in order to give recognition to a student's studies in an East Asian language and culture. Concentrators are expected to include a significant East Asian component in their senior work for their major; when this is not feasible, a separate project is required for the concentration.

The concentration in East Asian Studies may be declared in conjunction with most majors at Haverford and Bryn Mawr. Students interested in becoming concentrators should consult with their major adviser and the coordinator of East Asian Studies.

The requirements for the concentration are: (1) completion of the second-year level of language study in either (Mandarin) Chinese or Japanese as taught in the program, or equivalent proficiency in another East Asian language such as Korean; (2) introduction to East Asian Studies (EAST 101a), or equivalent course approved by concentration coordinator; and (3) four additional courses related to the area of focus. Of these four courses, no fewer than two and no more than three will also form part of the student's major.

It is expected that departmental senior theses will address issues concerning the concentrator's area of focus in East Asia. Where this is impossible, a concentrator may write a separate paper or expand on work done for East Asian courses. Concentrators will be permitted to enroll in the senior conference for East Asian Studies majors with the permission of the coordinator at their campus. Because the successful operation of the concentration depends on close cooperation between the associated departments on two campuses, students are urged to declare their intent to concentrate in East Asian Studies by the end of the first semester of their junior year.

The program strongly recommends study abroad to maximize linguistic proficiency and to take advantage of topics of instruction not offered by our faculty. The study abroad programs that are approved for our students are: The Associated China Program at Nankai University, People's Republic of China; the University of Massachusetts program at Taijung University, Taiwan; and International Christian University and Sophia University in Japan. Students are urged to plan ahead for study abroad and to consult with faculty as early as possible.

101a. Introduction to East Asian Studies An introduction to the study of East Asian civilizations, including China, Korea and Japan, with a focus on topics concerning history, belief, thought, family and social organization, identity, and cross-cultural relations. Also includes discussion of Asian American issues. (staff, Division I) *Not offered in 1996-97.*

186. Chinese Family and Society An exploration of Chinese, Japanese, and Korean views of the family in the past and present. Topics include: notions and practice of marriage, divorce, widowhood, adoption, and chastity. In addition we explore the functions of the extended kinship group as it relates to several overlapping structures: the socioeconomic world, the community of the living and the dead, and the political sphere. (Nylan; cross listed as History 186)

204. Contemporary Chinese Fiction: Mirror of Social Change An introduction to fundamental questions underlying contemporary Chinese history through literary narratives of post-Mao China. These representative stories and novellas provocatively articulate the historical specificity of ideological dilemmas and cultural dynamics, through the imaginary process of dealing with love, politics, sex, morality, economic reform, and feminist issues. All readings are in English translation and no previous preparation in Chinese is required. (Kong, Division III) *Not offered in 1996-97.*

205. Contemporary Chinese Movies and Cultural Changes (Kong, Division III)

220. Early Chinese Belief: The Five Classics of Confucianism An introduction to the texts on religion, politics, and social ethics which formed the core curriculum in education in imperial China (221 B.C. - A.D. 1911), together with modern interpretive articles on the key patterns of Chinese thinking that underlie these orthodox pronouncements. (Nylan, Division III; cross listed as History and Philosophy 220) *Not offered in 1996-97.*

225. Modern Chinese Literature: 1919-1948 An examination of a series of political, social, cultural, and ideological dilemmas underlying twentieth century Chinese history. Fundamental issues of modernity and new literary developments under the impact of the May Fourth Movement are discussed. All readings are in English translation and no previous preparation in Chinese is required. (Kong)

228a. Musical Voices of Asia (Freedman, Division III; cross listed as Music 228a) *Not offered in 1996-97.*

231a. Premodern Japanese Literature Historical and critical study of Japanese literature from the earliest texts to the haiku poets Basho and Issa, with a focus on Japanese lyrical poetics and the voice of the subject. Particular emphasis on writing by women. Genres include poetry, narrative fiction, diaries, essays, and drama. All readings in English translation. (Mizenko, Division III) *Not offered in 1996-97.*

232a. Modern Japanese Literature Historical and critical survey of Japanese literature in social and historical context from the seventeenth

century to World War II, with emphasis on the development of narrative and essayistic prose forms. All readings in English translation. (Mizenko, Division III) *Not offered in 1996-97.*

233. Taoism: The Religion and the Philosophy An exploration of a corpus of major Taoist philosophical texts (including Lao Tzu's *Tao te ching* and the *Chuang tzu*) as they relate to (or seem at odds with) the development of Taoist religion, the only religion native to China. (Nylan, Division III; cross listed as History and Philosophy 233) *Not offered in 1996-97.*

243a. Gender and Power in East Asia (Schattschneider; cross listed as Anthropology 243)

251b. Gender and Power: Japanese Religious Practice in an East Asian Context Anthropological perspectives on society in East Asia, with a focus on Japan, giving particular attention to issues of gender and power. How are the domains of gods, spirits, and ancestors entailed in the dynamics of kinship, sexuality, social hierarchy, and social reproduction? The practices and sociocultural contexts of shamanism, memorialization, and New Religions are also examined. (Schattschneider, Division I; cross listed as Anthropology 251b) *Not offered in 1996-97.*

259a. Anthropology of Modern Japan Society and culture in 20th century Japan. Gender, kinship, and domestic groups; rural and urban transformation; labor and ideology; religion and nationalism; commoditization and "transnationalism." (Schattschneider, Division I; cross listed as Anthropology 259a) *Not offered in 1996-97.*

261. The Emergence of Modern China and Japan This course traces and compares the evolution of basic institutions and social structures in China and Japan from the seventh century through the present with special focus on Sino-Japanese cultural and political interaction, trajectories of political and economic change, and the relationship of China and Japan to the wider world. (Smith, Division I; cross listed as History 261)

263a. The Chinese Revolution Places the Communist Revolution of 1949 in historical perspective by examining its causes; its impact on such key supporters as women, the peasants, workers, and intellectuals; and the extent to which it has transformed China and its place in the world. Prerequisite: History 111 or 114 or East Asian Studies 101 or 131 or their equivalent. (Smith, Division III; cross listed as History 263a) *Not offered in 1996-97.*

264a. Premodern Japan Japan to the 16th century, with emphasis on topics in cultural and social history, including foundational mythology and legends, origins and emergence of Japanese culture and identity, the impact of Buddhism and Chinese culture, the flourishing of writing by women in the Heian period, and class, ethnic, and regional conflict as ongoing phenomena. Prerequisite: East Asian Studies 101 or 131 or History 114 or permission of the instructor. (Mizenko, Division III) *Not offered in 1996-97.*

266b. Narratives of Postwar Japan A study of literary, cinematic, and graphic narratives of post Pacific War Japan, with emphasis on their representations of Japanese history, society, and culture. Among the themes addressed are Japan's military defeat, the atomic bombs, changes in the family, the status of women and ethnic minorities, the environment, bourgeois lifestyles, economic growth, and postmodernism. Readings in translation; films subtitled in English. (Mizenko, Division III) *Not offered in 1996-97.*

272. Early China: Material, Social, and Philosophical Cultures The development of early China from the Shang-Yin period (ca. 1600 B.C.) to the end of the T'ang (618-905), with an emphasis on artistic, philosophical, and economic changes. Archaeological evidence and primary source materials are used in conjunction with secondary literature to sketch the outline of daily life, as well as the pattern of elite culture. (Nylan, Division I; cross listed as History and Political Science 272) *Not offered in 1996-97.*

273. Historians, Visionaries, and Statesmen in China An examination of the most famous historians, visionaries, and statesmen in China, focusing on four distinct time periods: the Han dynasty, the eleventh century, the late nineteenth century, and the mid- to late twentieth century, each of which represents a time of significant sociopolitical change. (Nylan, Division III; cross listed as History and Political Science 273) *Not offered in 1996-97.*

274. The Chinese Village The history of the Chinese village from the 1898 reform movement to the present, focusing on historical changes and continuities in peasant life, as they relate to economic and personal relations (including gender roles), to the place of religion in local culture, and to the introduction of Western capitalism and ideas. (Nylan, Division I; cross listed as Growth and Structure of Cities, History, and Political Science 274)

275. Asian Megacities An examination of the reasons behind the phenomenal growth of the Asian megacity, using case studies drawn from a number of countries, including China, Indonesia, Japan, Korea, Taiwan, and Thailand. Race relations, public housing, widescale (and highly visible) poverty, labor relations, the changing role of women, environmental problems, and historical preservation efforts are also explored. (Nylan, Division I; cross listed as Growth and Structure of Cities and History 275) *Not offered in 1996-97.*

276. Vietnam, China and the U.S. An examination of American foreign policy objectives in Asia in the recent past as they relate to the "containment of China." The complex pattern of Chinese-Vietnamese relations and the "logic" pressing for "secondary wars" in Korea, Cambodia, and Laos are also explored. (Nylan, Division I; cross listed as History and Political Science 276)

281a. Japanese Theater, Text, Training, and Performance An examination of noh, kyogen, kabuki, bunraku, and fusion experiments both as dramatic texts and in performance. Videotapes, slides, and physical workshops. (staff, Division III) *Not offered in 1996-97.*

290. Meiji Japan: Ideology and Representation History of the Meiji period (1868-1912) of Japan. A review of primary sources (including autobiographies, paintings, music, and theater) to investigate aspects of the Meiji ideology of state and society, with an emphasis on the imperial institution. The course also considers the ideological and iconographic aspects of woodblock prints from the Frederic Shart collection. (staff)

293. Myth and Ritual in Ancient China An examination of a variety of myths and rituals of imperial China in order to understand early Chinese beliefs concerning gender relations, the political process, the origins of culture, and cosmic and individual self-realization and renewal. (Nylan, Division III; cross listed as History 293) *Not offered in 1996-97.*

303. Topics in the Recent History of the United States (staff; cross listed as History 303) *Not offered in 1996-97.*

306. Origins of Political Philosophy: China and Greece A consideration of two cases of the emergence of critical and self-reflective public discourse and of the subsequent problem of the relationship between philosophy and political life. Readings from Confucius, Mencius, Chuang tzu, Hsun tzu, the pre-Socratics, Plato, Aristotle, Thucydides. (Nylan, Salkever; cross listed as Philosophy and Political Science 306)

347a, b. Topics in East Asian History Topics include: peasants, elites, and the state in China; travelers' accounts of China; directed research on China and Japan. Prerequisite: East Asian Studies 101 or 131 or permission of the instructor. (Smith; cross listed as History 347a,b) *Not offered in 1996-97.*

353. East Asian Notions of Time and Space: Garden, House, and City This course seeks to understand Chinese and Japanese ways of thinking through an examination of their characteristic approaches to units of space. Readings on anthropology, art history, and city planning are included. A questioning mind and a hands-on approach, rather than advanced training in these disciplines, are prerequisites to the course. (Nylan; cross listed as Growth and Structure of Cities and History 353) *Not offered in 1996-97.*

399a. Senior Conference Critical analysis of the theoretical and methodological implications of Orientalism for the study of East Asia, followed by oral and written presentations of a senior project. Required of all majors; open to concentrators and others by permission. (Mizenko)

ASIAN AMERICAN STUDIES

The East Asian Studies program welcomes students who wish to combine their interests in Asian American studies with the study of an East Asian culture. These students are urged to consult with Michael Nylan (at Bryn Mawr), who will advise them on creating individual plans of study in appropriate departments.

CHINESE

Theresa J. Jen, M.A., *Senior Lecturer in Chinese*, at Bryn Mawr College (on leave, 1996-97)

Shizhe Huang, Ph.D., *Instructor in Chinese*, at Haverford College

Chiang Tz'u, M.A., *Visiting Senior Lecturer in Chinese*, at Bryn Mawr College

001, 002. Elementary Chinese An intensive introductory course in modern spoken and written Chinese. The development of oral-aural skills is integrated through grammar explanations and drill sessions designed to reinforce new material through active practice. Six hours a week of lecture and oral practice; also individual conversation. This is a year-long course; both semesters are required for credit. (Tz'u)

003, 004. Intermediate Chinese In this course, language skills in speaking, listening, reading, and writing are further developed through carefully designed practices. Oral proficiency is enhanced by dramatization of situational topics, and written skills by regular composition writing. Both reading and writing is in Chinese characters only. Five hours a week of classes, and two hours of lab. Prerequisite: Chinese 001, 002 or equivalent. (Huang)

201, 202. Advanced Chinese: Readings in the Modern Chinese Short Story and Theater This course has two goals: first, to develop students' overall language skills through reading and discussion of modern short stories; and second, to improve students' facility in written and oral expression through readings in modern drama and screenplays. Readings include representative works from the May Fourth Period (1919-27) to the present. Audio and video tapes of drama and films will be used as study aids. Prerequisite: Intermediate (second-year) Chinese or permission of the instructor. (Tz'u, Division III)

203, 204. Readings in Classical Chinese Prerequisite: Elementary and Intermediate Chinese or Japanese, or permission of the instructor. (staff) *Not offered in 1996-97.*

205. A Comparative Approach to the Chinese Novel Study of several masterworks of the Chinese narrative tradition; tracing their development in relation to other genres, including history, drama, and folklore. The course also aims to provide a broad comparative view of major problems in narrative literature based on readings in a variety of major Western and non-Western texts. A sample reading list includes: *Romance of the Three Kingdoms*; *Journey to the West*; *Dream of the Red Mansions*; *The Tale of Genji*; *Thousand and One Nights*; *The Decameron*; and *Remembrance of Things Past*. Readings and class discussions are in English, although there is a special additional section devoted to looking in detail at the actual classical Chinese text. Students familiar with classical Chinese may take this course for 1.5 credits. (staff, Division III) *Not offered in 1996-97.*

301. Readings in the Humanities Development of language ability in the areas of modern Chinese literature, history, and philosophy. Speaking and reading skills are equally emphasized through a consideration of the intellectual, historical, and social significance of representative

Bryn Mawr College

works. Prerequisite: Chinese 202 or consent of instructor. (staff, Division III) *Not offered in 1996-97.*

JAPANESE

Matthew Mizenko, Ph.D., *Assistant Professor of East Asian Studies and Director of the Japanese Language Program*, at Haverford College
Yoko Koike, M.S., *Instructor of Japanese*, at Haverford College

001, 002. First-year Japanese Introduction to the four basic skills (reading, writing, speaking, and listening), with special emphasis on the development of conversational fluency in sociocultural contexts. Six hours a week of lecture and oral practice, and at least two hours in the language lab. This is a year-long course; both semesters are required for credit. (staff)

003, 004. Second-year Japanese (Intensive) A continuation of first-year Japanese, focusing on the further development of oral proficiency, reading, and writing skills. Seven hours a week of lecture and oral practices, and at least two hours in the language lab. This is a year-long course; both semesters are required for credit. Prerequisite: Japanese 001, 002 or equivalent. (Koike)

101, 102. Third-year Japanese A continuation of language study with further development of oral proficiency. Emphasis is on reading and discussing simple texts. Advanced study of grammar and kanji; introduction to composition writing. Three hours of class, one hour of oral practice, and work in the language lab. Prerequisite: Japanese 003, 004 or equivalent. (Koike)

201, 202. Fourth-year Japanese Advanced study of written and spoken Japanese using texts and audio-visual materials. Prerequisites: Japanese 101, 102 or equivalent and consent of instructor. (Koike)

ECONOMICS

Professors:

Richard B. Du Boff, Ph.D., *Samuel and Etta Wexler Professor in Economic History and Chairman*
Noel J. J. Farley, Ph.D.

Associate Professor:

David R. Ross, Ph.D. (on leave, 1996-97)
Harriet B. Newburger, Ph.D.

Assistant Professor:

Janet Ceglowski, Ph.D.

At Haverford College

Professor:

Vernon Dixon, Ph.D.

Economics

Associate Professors:

Linda Bell, Ph.D.

Vladimir Kontorovich, Ph.D.

Assistant Professors:

Richard Ball, Ph.D.

David Schaffer, Ph.D.

The economics curriculum consists of courses given at Bryn Mawr and Haverford. It is designed to provide an understanding of economic processes and institutions and the interactions among the economic, political, and social structures; it trains undergraduates in the methods used to analyze those processes and institutions and enables them to make policy judgments.

Economics 105 (or 101 and 102 at Haverford) introduces the theories and operating characteristics of modern economics that an educated person should understand; they also prepare students for further work in economics and business. Courses in the 130 series apply the theories and tools learned in Economics 105 to current issues in economic policy and analysis. The group of intermediate, 200-level courses offers a full range of topics in the discipline and is intended to meet a variety of student interests. The advanced courses supply a methodological and theoretical foundation for those planning to use economics in their professional careers.

Requirements for the major are ten semester courses in economics, including Economics 105 (or 101 and 102 at Haverford); Economics 203: Statistical Methods in Economics; Economics 300: Microeconomic Analysis; and Economics 302: Macroeconomic Analysis, plus at least two additional semester courses of 300-level work.

At least one course that requires a substantial research paper must be taken, preferably in the senior year. Economics 304, 306, 313, 314, 316, 322, 326, and 331 either require or can incorporate such a paper. All of these courses have 200- and/or 300-level prerequisites; students should consult the list of courses below for the prerequisites for all courses in economics. At least one semester of calculus (Mathematics 101 or the equivalent) is a prerequisite for Economics 300, 302, and 304, and for some courses at Haverford.

Prospective majors in economics are advised to take Economics 105 (or 101 and 102 at Haverford) by the end of the first semester of sophomore year. Economics 203 and either Economics 300 or 302 must be completed by the end of the junior year; Economics 300 and 302 must both be completed by the end of first semester of the senior year. Students whose grade in Economics 105 (or Economics 101 and 102 at Haverford) is below 2.3 are advised not to major in economics. Students planning to spend the junior year studying abroad must complete Economics 105 (or 101 and 102) and 203, and preferably one other 200-level course, by the end of sophomore year. It is suggested that two or three 200-level courses be taken as background for 300-level courses. Members of the department should be consulted about desirable sequences of courses.

An economics major whose average in economics courses at the beginning of the second semester of senior year is 3.4 or better is invited to become a candidate for the degree with honors in economics. Honors are awarded on the basis of a student's performance on a comprehensive examination administered by the department, the department's evalua-

tion of a paper that the student submits as an example of her "best" work, and the student's performance in all her economics courses, including those taken in the second semester of senior year. Average grades of 3.7 for the paper and the comprehensive examination are required for a student to graduate with honors.

Requirements for the minor in economics include Economics 105 (or 101 and 102), 203, and a coherent selection of four or more additional courses approved by the department chairman. For information about the International Economic Relations Program, see page 248.

Students intending to do graduate work in economics should take at least two full years of college-level mathematics (101, 102 and 201, 202, 203, or the equivalent), and Economics 300, 302, and 304.

105. Principles of Economics An introduction to micro and macroeconomics: opportunity cost, supply, and demand; consumer choice, the firm, and output decisions; market structures; efficiency and market failure; the determination of national income, including government spending, money, and interest rates; unemployment, inflation, and public policy; foreign trade and the balance of payments. (staff, Division I)

132. Free Trade: Rhetoric and Reality An introduction to international economics through relevant policy issues and problems. In addition to the economic foundations of free trade, possible topics include: uses and abuses of trade protection, imports and international competitiveness, pros and cons of foreign direct investment, bilateral trade tensions, and macroeconomic implications of trade imbalances. Prerequisite: Economics 105, or 101 and 102. (Ceglowski, Division I)

134. GATT, The EU, NAFTA, and All That Basic theory of international trade. Bilateralism v. Multilateralism in trade policy since 1945. The emergence and development of GATT, EU, ASEAN, NAFTA. Regional vs. worldwide trade arrangements. The growing range of issues covered in trade policy—tariffs, public procurement, environmentalism, labor conditions, intellectual property rights, services. Third World countries and the New World Economic Order. Prerequisite: Economics 105, or 101 and 102. (Farley, Division I) *Not offered in 1996-97.*

135. Understanding the Macroeconomy: Questions and Controversies Basic macroeconomic concepts are reviewed. Alternative methods of aggregate demand and aggregate supply are developed; the financial sector of the economy and financial institutions are introduced. Keynesian, monetarist, and new classical theories of income determination are compared. The impact of foreign trade and exchange rates in open economies is evaluated. Economic growth, government spending and deficits, social security, and other issues are explored. Prerequisite: Economics 105, or 101 and 102. (Du Boff, Division I)

136. Working with Economic Data Applies the theory learned in Principles of Economics to the quantitative analysis of economic data; uses spreadsheets and other tools to collect and judge the reliability of economic data. Topics may include: evaluating alternative measures of income inequality and poverty, unemployment, national income and other measures of economic well-being; cost-benefit of public and private investments; construction of price indices and other government

statistics; evaluating economic forecasts. Prerequisite: Economics 105 or 102. (Ross, Division I, Quantitative Skills) *Not offered in 1996-97.*

203. Statistical Methods in Economics Frequency distributions, probability and sampling theory, simple correlation and multiple regression, and an introduction to econometric terminology and reasoning. The computer techniques required are developed as part of the course. Prerequisites: Economics 101, 102, or 105. (Ceglowski, Division I, Quantitative Skills)

204. Economics of Local Government Programs Elements of state and local public finance are combined with policy analysis. After introducing analytical principles, the course focuses on policy areas such as education, housing, local taxes, and interaction between central city and suburban governments. Each area is examined from the standpoint of economic theory, then in terms of actual programs that have been carried out. Relevance of the economic theory is evaluated in light of lessons learned from program implementation. Examples are drawn from the Philadelphia area. Guest speakers are used when possible. Prerequisite: Economics 101 or 105. (Newburger, Division I)

206. International Economics International exchange in the nonproduction situation. Comparative advantages, the Heckscher-Ohlin theorem, and the gains from trade. Empirical studies of the basis of United States trade. Price agreements on primary commodities. Market structure, multinational firms, and foreign investment. Tariff theory and trade between industrialized and developing countries. Prerequisites: Economics 101, 102, or 105. (Farley, Division I)

207. Money and Banking The development and present organization of the financial system of the United States. Domestic and international monetary theory and policy. Prerequisites: Economics 101, 102, or 105. (staff, Division I) *Not offered in 1996-97.*

213. Taming the Modern Corporation Introduction to the economics of industrial organization and regulation, focusing on policy options for ensuring that corporations enhance economic welfare and the quality of life. Topics include firm behavior in imperfectly competitive markets; theoretical bases of antitrust laws; regulation of product and occupational safety, environmental pollution, and truth in advertising. Prerequisite: Economics 101 or 105. (Ross, Division I) *Not offered in 1996-97.*

214. Public Finance Analysis of government's role in resource allocation, emphasizing effects of tax and expenditure programs on income distribution and economic efficiency. Topics include sources of inefficiency in markets and possible government responses; federal budget composition; U. S. tax structure and incidence; multigovernment public finance. Prerequisites: Economics 101, 102, or 105. (Newburger, Division I)

216. International Finance and Economic Policy The balance of payments and theories of its determination; fixed and flexible exchange rates; the dollar's behavior in exchange markets; the Eurodollar market and the European monetary system; public policy for internal and external balance; international debt problems. Prerequisite: Economics 206. (Farley, Division I)

221. United States Economic History Long-term trends in output, labor and capital, and technology, with emphasis on the rise of "big business" after 1870. Foreign trade and investment and the role of government. The framework is one of imbalances and disequilibria in an expanding capitalist economy. Prerequisites: Economics 101, 102, or 105. (Du Boff, Division I; cross listed as Growth and Structure of Cities 221) *Not offered in 1996-97.*

222. History of Economic Thought Examination of the Mercantilists, the Physiocrats, Smith, Malthus, Ricardo, Marx, Mill, Marshall, and Keynes. Emphasis on the development of economic theory; also economic growth and the stationary state, value and distribution, and the role of the state. Prerequisites: Economics 101, 102, or 105. (Du Boff, Division I) *Not offered in 1996-97.*

230-249. Topics in Economics Courses in the 230-249 series deal with contemporary problems from the economist's viewpoint. They are offered as demand and staffing permit. Courses offered in recent years are listed below. Students should consult the instructor about prerequisites. (staff, Division I)

232. Latin American Urban Development *Not offered in 1996-97.*

234. Environmental Economics (staff, Division I; cross listed as Growth and Structure of Cities 234) *Not offered in 1996-97.*

300. Microeconomic Analysis Systematic investigation of the analytical framework underlying the behavior of consumers and firms. Determination of price; partial and general equilibria; efficiency and equity. Application to current economic problems. Prerequisites: Economics 101, 102, or 105 and Mathematics 101 or equivalent. (Newburger)

302. Macroeconomic Analysis Theoretical foundations of income determination, monetary phenomena, and fluctuations in price levels and employment; introduction to dynamic process; economic growth. Prerequisites: Economics 101, 102, or 105 and Mathematics 101 or equivalent. (Ceglowski)

304. Introduction to Econometrics The econometric theory presented in Economics 203 is further developed and its most important empirical applications are considered. Each student does an empirical research project using multiple regression and other statistical techniques. Prerequisites: Economics 203, 300, and Mathematics 101 and permission of instructor. (Ross) *Not offered in 1996-97.*

306. Advanced International Economic Policy Advanced models of economic integration; trade and economic change in developed and developing economies; foreign capital movements; exchange rate determination. Prerequisites: Economics 206 and 216. (Farley)

313. Industrial Organization and Public Policy Examination of the ways in which market structure and firm behavior interact to affect the performance of American industry. Topics include the dynamics of oligopolistic rivalry; competitive strategy; and the impact of antitrust

legislation. Prerequisites: Economics 213 and 300. (Ross) *Not offered in 1996-97.*

314. Economics of Poverty and Discrimination Topics in public finance which include: state and local finance focusing on differences in resources and expenditures among communities and the role of intergovernmental transfers; the extent and sources of poverty among individuals in the U.S. and the results of government programs to alleviate it; and discrimination, particularly in housing. Prerequisites: Economics 203; 208, 214 or 215; 300 are recommended, or permission of instructor. (Newburger; cross listed as Growth and Structure of Cities 314)

316. Transition of the European Economy Topics include: the historical analysis of the process of integration and fragmentation of European countries; the politics of monetary unification; center versus periphery in the E.E.C.; political analysis of the German unification; determination of exchange rates; social policies in the E.E.C. Prerequisites: Economics 206, 216, junior standing, and permission of the instructor. (Farley)

322. Issues in Macroeconomics: Theory, Policy, History Macroeconomic theory is reviewed, from Keynes through the "new classical economics" and the "new Keynesianism." Special attention is given to Post Keynesian economics and its possible contributions to theory and economic history. Prerequisite: Economics 221 or 222 or permission of instructor. (Du Boff) *Not offered in 1996-97.*

326. Open Economy Macroeconomics Advanced theory and policy with respect to aggregate international economic issues. Topics include: international mobility of saving and investment flows; international transmission of economic disturbances; domestic impacts of international economic policies; and causes and consequences of balance of payments disequilibria. Each student does a semester-long research project on a relevant topic of interest. Prerequisites: Economics 216 and 302 and permission of instructor. (Ceglowski)

331. Human Capital Accumulation and Development What are the economic determinants and consequences of human capital accumulation? To what extent does educational expansion contribute to economic growth, reduce income inequality, promote intergenerational mobility, and induce other desirable changes in behavior? Why have governments intervened in the market for education and what have been the consequences? While the focus is on low income countries, there is discussion of the extent to which findings apply to the United States. Prerequisite: Economics 225 and permission of the instructor. (Ross) *Not offered in 1996-97.*

403. Supervised Work An economics major may elect to do individual research. A semester-long research paper is required; it satisfies the 300-level research paper requirement. Students who register for 403 must submit an application form before the beginning of the semester (the form is available from the department chairman). The permission of both the supervising faculty member and the department chairman is required.

Bryn Mawr College

Haverford College offers the following courses in economics:

- 101. Introduction to Microeconomics
- 102. Introduction to Macroeconomics
- 111a. Financial Accounting
- 203b. Statistical Methods in Economics
- 205b. Corporate Finance
- 208a. Labor Economics
- 209b. Law and Economics
- 211a. The Soviet System and Its Demise
- 215a. Urban Economics
- 225. Developing Economies
- 226. Agricultural Biotechnology in Developing Economies
- 227. Economic Policy Reform in Developing Countries
- 300a. Intermediate Microeconomic Analysis
- 302b. Intermediate Macroeconomic Analysis
- 304b. Introduction to Econometrics
- 311a. Theory of Non-Cooperative Games

ENGLISH

Professors:

Carol L. Bernstein, Ph.D., *Fairbank Professor in the Humanities and
Chairman of Comparative Literature* (on leave, 1996-97)

Sandra M. Berwind, Ph.D.

Peter M. Briggs, Ph.D.

Robert B. Burlin, Ph.D., *Mary E. Garrett Alumnae Professor* (on leave,
1996-97)

E. Jane Hedley, Ph.D., *Chair*

Joseph E. Kramer, Ph.D.

Associate Professors:

Linda-Susan Beard, Ph.D.

Katrin Ristkok Burlin, Ph.D.

Susan Dean, Ph.D.

Karen Tidmarsh, Ph.D., *Dean of the Undergraduate College*

Visiting Associate Professor:

Richard Hardack, Ph.D.

Senior Lecturer:

Anne Dalke, Ph.D.

Lecturers:

Helene Elting, Ph.D.

Barri Gold, Ph.D.

Regine Silver, Ph.D.

Instructor:

Quinn Eli, M.A.

Affiliated Faculty:

Margaret Holley, Ph.D., *Director of Creative Writing*

Rachel Simon, M.F.A., *Lecturer in the Arts*

Kathleen Wright, Ph.D., *Professor of Philosophy at Haverford College*

The department offers an opportunity to explore all periods of English literature and many varieties of literary interpretation. The department seeks to develop in both the major and non-major historical perspective, interpretive acumen, writing skills, and an understanding of the imaginative process.

The English major requires at least eleven units of work. The prerequisite to the English major is English 101-102: Introduction to Literary Study or its equivalent. This sequence should ordinarily be completed no later than the sophomore year.

Major work consists of a minimum of nine units combining second year (200) and advanced (300) courses. Two of the total number of units must be in literature prior to 1800, and two units must be in literature after 1800. At least three of the total nine units must be at the 300 level. Students may fulfill one of the required units with a unit of Creative Writing. In the final semester of her major career, the student has the opportunity to participate in a seminar designed exclusively for senior majors, the focus of which will change from year to year (English 398) or to write a supervised long essay (English 399), if her prospectus for such a work is accepted by the Department.

Although the Department of English neither requires nor counts allied courses toward the completion of the major, it recognizes that other courses in the humanities are important for rounding out a liberal education or acquiring specific skills in preparation for later work or graduate study. Similarly, while the Department recognizes the potential value to the student of courses taken in other programs or institutions, students may receive a maximum of four units of major credit at the 200-level for work done elsewhere, and are required to do all of their 300-level work within the two-college curriculum. Students who wish advice on their various choices are urged to consult their major advisers.

Honors in English are voted by the English faculty at the end of the Senior year and are based upon a student's cumulative average in the work of her major.

Students contemplating graduate work in English are reminded that most graduate schools require a reading knowledge of French and German, and sometimes Latin as well, for the Ph.D.

Requirements for an English minor are English 101 and 102 or their equivalent and four second-year or advanced units in English literature. At least one unit must be at an advanced (300) level.

SEMINARS IN LIBERAL STUDIES

First-year students are required to take a Seminar in Liberal Studies (LBST 001-002) to fulfill the College's requirement in English Composition. These seminars are small, discussion-based classes emphasizing the development of interpretive, analytical, and writing skills through discussion, weekly papers, and individual conferences. Each seminar examines some particular topic and body of readings and the list

offerings changes significantly from year to year. The list of themes and readings available in any given academic year is made available to entering students in the summer before they enroll.

CREATIVE WRITING COURSES

For course descriptions, see Arts Program in this catalogue.

Arts Program 260. Writing Short Fiction: Exploring Content and Style (Simon)

Arts Program 261. Writing Poetry: Introduction to Contemporary Styles (Holley)

Arts Program 263. Creative Nonfiction (Eli)

Arts Program 264. Feature Journalism (Eli)

Arts Program 360. Short Fiction Writing (Simon)

Arts Program 361. Writing Poetry: Craft and the Creative Process (Holley)

Arts Program 362. Advanced Playwriting (Lord)

Arts Program 363. Experimental Writing (Holley)

LITERATURE COURSES

101, 102. Introduction to Literary Study These courses are required as preparation for the English major, but are open to non-majors also. They provide a basis for the formal study of literature in English through reading, discussion and written response to major texts by both classic and contemporary authors. By interrogating and engaging with the multifarious variety and intertextual richness of this tradition, we seek to enlist a committed group of majors and to enlarge the community of Bryn Mawr graduates for whom reading and critical engagement with literature of all kinds is a lifelong necessity and pleasure.

In 101 the reading consists primarily of long narrative works in poetry and prose; in 102 our focus shifts from *mythos* to *ethos*, from storytelling to the imaginative representation of self and society, nature and human nature in lyric poems, novels, essays and plays. (staff, Division III)

201, 202. Chaucer A close reading of the *Canterbury Tales*. (staff, Division III) *Not offered in 1996-97.*

203. Introduction to Medieval Language and Literature An introduction to both the language and the major literary works of the English Middle Ages. Review of Old and Middle English grammar and lexicon with emphasis on those elements that affect verse forms. Major literary

works are read, for the most part, in translation, with selections in the original for comparison. (Division III) *Not offered in 1996-97.*

206. Theories of Reading. The focus of this course, instead of literary texts and their production, is the activity of reading. This activity has been described and understood in many different ways: we explore several theories of reading and play them off against each other. Some fiction and poetry is included in the course to help test these theories and work out their implications. (Hedley, Division III)

210. Self, Text, and Society in Early Modern England A study of the modes of self-examination, self-presentation, and self-understanding that were fostered by literacy, literary activity, and print culture in the early modern period from 1500-1650. Course material is drawn from civic utopias, epic and pastoral romance, lyric poetry and sonnet sequences, prose fiction, plays, diaries and letters, devotional writings, biblical translation, educational literature, and defenses of women. (Hedley, Division III)

222. English Renaissance Drama to 1642. A survey of drama in England (not always exclusive of Shakespeare) to the closing of the theaters in 1642, with special attention to theatrical conventions and to the elaboration of specific forms. The generic focus of the survey changes from year to year. (Kramer, Division III). *Not offered in 1996-97.*

225. Shakespeare A selective survey of the Shakespeare canon. (Kramer, Division III)

231. Milton A survey of a broad array of Milton's writings in poetry and prose, with particular emphasis not only upon his individual accomplishments, but also upon contemporary discussions of who "the poet" is and by what standards the accomplishments of poetry should be measured. (Briggs, Division III) *Not offered in 1996-97.*

240. Restoration and Early Eighteenth-century Literature The rise of new literary genres and the contemporary efforts to find new definitions of heroism and wit, good taste and good manners, sin and salvation, individual identity and social responsibility, and the pressures exerted by changing social, intellectual, and political contexts of literature. Readings from Dryden, the Restoration dramatists, a few early feminist writers, Defoe, Swift, and Pope. (Briggs, Division III)

241. Later Eighteenth-century Literature A generous selection from works by Johnson, Boswell, and Sterne, together with shorter samplings from Gray, Burke, Goldsmith, Burney, Reynolds, Wollstonecraft, and others. (Briggs, Division III) *Not offered in 1996-97.*

247. The Eighteenth Century English Novel A study of selected eighteenth-century English novels to be read in the context of both contemporary and current novel criticism. Special points of focus include: textual self-reflexivity and reflection of such contemporary themes and issues as feminism (woman as author, woman as authored); readership, gender and genre; the "commodification" of fiction; concerns about the nature (in form and content) of the "new" genre of the novel and its ethics. Readings include works by Austen, Burney, Edgeworth,

Defoe, Richardson and Fielding. (K. Burlin, Division III) *Not offered in 1996-97.*

252. The Romantic Movement. A study of the major romantic poets and their circles. Topics include: the construction of subjectivity, autobiographical narrative, romantic mythmaking, the quest, the representation of revolution, the sublime, gender and genre. (Bernstein, Division III) *Not offered in 1996-97.*

256. Marginality and Transgression in Victorian Literature A re-reading of Victorian texts with the aim of foregrounding concerns that High Victorianism tried to suppress or marginalize: poverty, sexuality, revolution, criminality, aestheticism. The ways in which the anarchic and the scandalous jostle against the "respectable" affect both the forms and themes of Victorian literature. The semiotics of transgression, the discourses of sexuality, the fascination of the Other, the connections of the upper classes with the underworld: these are some of the issues explored. (Bernstein, Division III) *Not offered in 1996-97.*

258. Nineteenth-century English Novel A study of selected nineteenth-century English novels to be read in the context of both contemporary and modern novel criticism. Special points of focus include: textual self-reflexivity; representations and theories of the gendered imagination; the "Woman Question"; readings of the texts as unified by the theme of the imagination as a vital principle in the successful negotiation of the individual of her/his society/culture. Readings include works by Austen, Brontë, Dickens, Thackeray and Eliot. (K. Burlin, Division III)

260, 261. American Literature to World War I A two-semester survey, comparative and chronological, of a wide assortment of imaginative texts expressive of the diverse cultures (diverse in race, religion, class, gender, language, and language-philosophy) that coexisted and contended on the North American continent from the pre-Columbian era to the First World War. The survey rotates every two years. Students are welcome to take any of the courses (260, 261, 264, 265) in any order. (Dean, Division III)

262. Introduction to African American Literature A weaving together of different texts and different moments from the African American experience, past and present, around themes of slavery and freedom, nostalgia and loss, similarity and difference. (Beard, Division III) *Not offered in 1996-97.*

263. Toni Morrison and the Art of Narrative Conjure Students read all of Morrison's primary imaginative texts, in publication order, as well as essays by Morrison on articulating the unspeakable, the Nobel Prize, and the American tradition of *Playing in the Dark*. Woven into and among the discussions of each text are a series of critical lenses which explore several of the vantages one might use in the reading of a conjured narration. (Beard, Division III) *Not offered in 1996-97.*

264, 265. American Literature from World War I to the Present A two-semester survey, comparative and chronological, of imaginative texts written inside and alongside the Modernist and Post-modernist move-

ments. By reading these texts with alertness to the shaping force of gender, class, race, religion, language, and language-philosophy, we will look for the interplay of individual and group components in identity and culture. The survey rotates every two years. Students are welcome to take any of the courses (260, 262, 264, 265) in any order. (Dean, Division III) *Not offered in 1996-97.*

268. "Speaking for Ourselves": Readings in Native American Literature A study of the Native American Indian "voice" as we find it recorded in myths, early orations, nineteenth- and twentieth-century autobiography, and contemporary forms of poetry and short stories. Most of the work is with literature, but time is set aside each week for audio-visual materials—recordings of interviews, chants and music, stories and legends—that help develop a sense of the religious and social context that the written texts assume. To build a sense of a complex Native American world view, the course looks for definitions that hold across tribes for such often paired terms as: animate and inanimate, self and alterity, individual and group identity, natural and civilized. To develop a useful double vocabulary, time is taken at the beginning and end of the semester to sample some influential texts from European and Euro-American literature (legal, philosophical, anthropological) that read a markedly different set of meanings into the list of terms above. (Dean, Division III) *Not offered in 1996-97.*

270. Jewish American Literature (Hellerstein, Division III; cross listed with Hebrew and Judaic Studies)

271. Moderns and Contemporaries A study of the moment of divergence in high culture which occurred around 1900, and which is marked in literature by the disagreement between "contemporaries," who appealed to the main body of cultured taste by continuing the novelistic tradition of realism, and the "moderns," who rejected realism in the name of art. Moderns include such writers as James, Woolf, Lawrence, and Conrad; contemporaries include John Galsworthy, H.G. Wells, Arnold Bennett, and Rudyard Kipling. (Berwind, Division III) *Not offered in 1996-97.*

272. New Patterns in Feminist Spirituality Prose writings which explore spirituality from the varied perspectives of twentieth-century American women such as Denise Levertov, Rhoda Lerman, Sonia Sanchez, Natalie Goldberg, Hisaye Yamamoto, Bharati Mukherjee, May Sarton, Lucille Clifton, Julia Esquivel, Paula Gunn Allen, Diane Glancy, Leslie Silko, Dorothy Day, Flannery O'Connor, Toni Bambara, Mary Gordon, Cynthia Ozick, Grace Paley, and others, read in conjunction with essays by contemporary feminist theologians. (Dalke, Division III; cross-listed in Feminist and Gender Studies) *Not offered in 1996-97.*

273. "Womanspirit Rising:" American Women Writers on Spiritual Quest An exploration of the spiritual lives of American women as described by themselves from the seventeenth through the late nineteenth centuries, with an emphasis on those who critically appropriated the religious beliefs available to them, or who challenged their exclusion from traditional religious practice. Readings include texts by Maria Chona, Anne Hutchinson, Anne Bradstreet, Mary Rowlandson, Sor Juana Ines de la Cruz, Elizabeth Seton, Rebecca Jackson, Sojourner

Truth, Sarah Grimke, Margaret Fuller, Harriet Beecher Stowe, Emily Dickinson, Phoebe Palmer, Mary Baker Eddy, Elizabeth Cady Stanton, Anzia Yezierska. (Dalke, Division III; cross listed as Feminist and Gender Studies) *Not offered in 1996-97.*

276. The Modernist Movement, 1900-1925 Modern literature in its relationship to earlier literary and intellectual traditions, principal themes, and technical achievements, seen through the study of such writers as James, Conrad, Lawrence, Joyce, Yeats, Williams, Woolf, Stevens, Pound, Eliot. (Berwind, Division III)

279. Modern African Fiction Using the metaphors of germination and of architecture, students explore the multiple reinventions of Africa and the imaginative constructions of human experience viewed through several African lenses. Selected writers for analysis include Wole Soyinka, Ngugi wa Thiong'o, Bessie Head, Dambudzo Marechera, Ama Ata Aidoo, Mongo Beti, J.M. Coetzee, and Naguib Mahfouz. (Beard, Division III; cross listed as Comparative Literature 279) *Not offered in 1996-97.*

280. Major Texts of the Feminist Tradition in the West: From Wollstonecraft to Woolf A study of works, written and spoken, from the mid-seventeenth century to the late 1930's, which examine the causes and nature of women's places in society, and the creation of alternative visions and strategies. Includes authors such as Mary Wollstonecraft, Mary Shelley, Angelina and Sarah Grimke, Margaret Fuller, Elizabeth Cady Stanton, Susan B. Anthony, Sojourner Truth, Harriet Beecher Stowe, Rebecca Harding Davis, Christina Rossetti, Anna Julia Cooper, Charlotte Perkins Gilman, Emma Goldman, Alexandra Kollantai, Radclyffe Hall, Kate Chopin, Simone de Beauvoir, and Virginia Woolf. (Dalke, Division III; cross listed as Feminist and Gender Studies) *Not offered in 1996-97.*

282. The Lyric Instruction in the analysis of short poems from different periods. Emphasis on the identification and negotiation of the verbal structures—prosodic, rhetorical, figurative—by which poems express their meaning, with some attention to critical theory. (Berwind, Hedley, Division III)

283. The Urban Novel The representation of the city in novels from several literatures. The course explores such topics as the semiotics of the city, the "painting of modern life," the commodity culture of cities, politics and anarchy, plots and urban detection, the city and the construction of identity, transgression in gender and class, the poetics of the city and the tensions between modernism and postmodernism. Readings will begin with Dicken's *Bleak House* and conclude with Calvino's *Invisible Cities*. (Bernstein, Division III; cross listed as Comparative Literature and Growth and Structure of Cities 283) *Not offered in 1996-97.*

284. Women Poets: Giving Eurydice a Voice The work of several women poets of the nineteenth and twentieth centuries is used to bring a feminist poetic into focus. Poets include: Elizabeth Barrett Browning, Emily Dickinson, Christina Rossetti, H.D., Elizabeth Bishop, Gwendolyn Brooks, Adrienne Rich, Anne Sexton, Sylvia Plath, Audre

Lorde, Rita Dove, Marilyn Hacker. (Hedley, Division III) *Not offered in 1996-97.*

287. The Multicultural Novel (Women Writers) A close scrutiny of novels written in English by women writers whose literary productions are informed by the tensions between (at least) two languages and two cultures. Novels include texts by Caribbean, Asian-American, African, Chicana, and African-American woman writers. (K. Burlin, Division III; cross listed as Comparative Literature 297) *Not offered in 1996-97.*

289. Lesbian and Gay Literature An introduction to and rich sampling of the varieties of literary production by uncloseted, hence unfurtive, lesbian and gay writers in the U.S., the United Kingdom, and Canada, since 1969. (Kramer, Division III)

291. The Poetics and Politics of the Sublime An exploration of theories of the sublime in classical, early modern, and contemporary versions. As an aesthetic of excess and incommensurability opposed to the orderliness of an aesthetic of beauty, the sublime appears in rhetorical, empirical, and moral versions. Issues of individual moral freedom become entwined with a problematic of representation, as well as with revolutionary politics. The essays will be read in conjunction with a group of sublime poems, passages, and short stories. The readings include works by Longinus, Burke, Kant, Schiller, Shelley, Freud, Benjamin, Bloom, Derrida, Lyotard, and Nancy. (Bernstein, Division III; cross listed as Comparative Literature 291) *Not offered in 1996-97.*

292. Introduction to Literary Theory Introduction to the study of literary theory and criticism. Topics vary; recent topics have included feminist literary theory and Marxist critical theory. (staff, Division III). *Not offered in 1996-97.*

293. The Play of Interpretation A study of the processes and ends of interpretation in the humanities and social sciences, and a survey of common problems and the attempt to discover common frameworks and approaches to texts. An examination of factors central to interpretation, such as conceptions of text, author, and reader; followed by the exploration of the role of description, metaphor, and writing, as well as such concepts as structure and history; and concluding with a study of the models offered by hermeneutics, structuralism, and post-structuralism. Although the reading is confined to recent texts, these texts point to their origins in earlier writing and raise questions about interpretive issues in other disciplines. (Bernstein, Dostal, Division III; cross listed as Philosophy and Comparative Literature 293) *Not offered in 1996-97.*

294. Psychoanalysis and Literary Criticism An exploration of the role of psychoanalysis in literary criticism through the close study of works by Freud and Lacan, as well as by major critics who have incorporated psychoanalytic theory into their works. The readings survey the relation of psychoanalysis to poetics, rhetoric, narration, interpretation, deconstruction, feminism, and film theory. *Oedipus Rex*, *Hamlet*, and *The Turn of the Screw* are included in the readings. (Bernstein, Division III; cross listed as Comparative Literature 294) *Not offered in 1996-97.*

All courses at the 300 level are limited in enrollment and require permission of the instructor to register.

300, 301. Old English Literature (R. Burlin) *Not offered in 1996-97.*

303. Middle English Romance Readings of short Middle English verse romances, *Sir Gawain and the Green Knight* and Malory's *Works*, with discussion of the problems of generic definition and narrative analysis. *Not offered in 1996-97.*

311. Renaissance Lyric Both the continuity of the lyric tradition that begins with Wyatt and the distinctiveness of each poet's work are established. Consideration is given to the social and literary contexts in which lyric poetry was written. Poets include Wyatt, Spenser, Sidney, Shakespeare, Donne, Herbert, and Jonson. (Hedley)

321. Medieval and Early Renaissance Drama A close look at the rich and varied dramatic offerings of the Church and of the secular creative spirit from the Tenth Century to the mid-Sixteenth and at the cultural contexts in which they flourished. (Kramer)

324. Advanced Study of Shakespeare Topics vary from year to year; the course supposes significant prior experience of Shakespearean drama and/or non-Shakespeare Renaissance drama. (Kramer) *Not offered in 1996-97.*

326. Theaters of Ben Jonson The fullness of Ben Jonson's career as professional dramatist, writer of Court Masques, poet, critic, and translator is studied intensively. In certain years, the focus may alter to set Jonson among his contemporaries. (Kramer) *Not offered in 1996-97.*

350. Romanticism: Crisis and Critique An exploration of the dialogue between literature and philosophy and an examination of the role of language in engendering the ideas of genius, originality, self-authoring, and poetic identity. Topics include Romantic irony, allegory, the sublime, the uncanny, Romantic fragments in opposition to philosophical systems, dreams, and mythmaking. Texts from the Romantic period as well as interpretations by modern writers are read. Authors include Wordsworth, Coleridge, Keats, Shelley, Herder, Schiller, Kant, Schlegel, Kleist, Holderlin, Derrida, Rousseau, de Man, and Benjamin, Mary Shelley. (Bernstein, K. Wright; cross listed as Comparative Literature 350) *Not offered in 1996-97.*

358. Women of Talents Identification and definition of "female aesthetics" and associated ethics. Issues include: (1) why/where/how women write; (2) women writers' representation of acts of imagination, its processes, practices, and psychology; (3) the existence of a "female tradition"; (4) the resistance of female aesthetic to closure, to "forms" and "framing," the "feminization of post-modernist thought; (5) how women writers' "special relationship" to language problematizes the function and status of figurative language; (6) how the body and the "literal" inform female discourse; and (7) how a theory of a special kind of "embodiment" or "incarnation" of the word comes to factor importantly in articulations of such aesthetic. Readings include novels by Cisneros, Drabble, Kingston, Lessing, Morrison, Woolf; short stories by multicultural writers; essays

about writing and painting by women; appropriate theory. (K. Burlin)

375. W. B. Yeats and Wallace Stevens A study of the relationship between the poetic techniques and critical theories of two modern "philosophical" poets. (Berwind) *Not offered in 1996-97.*

377. James Joyce A study of the works of James Joyce, which attempts to place Joyce in his own cultural milieu and in the development of modernism, and to apply to his work various critical styles. (Berwind) *Not offered in 1996-97.*

380. Landscape Art in Cultural Perspective An exploration through selected instances of some of the arts of literary landscape, with particular attention to cultural factors which shape the perception, representation, manipulation, and appreciation of landscapes. What this means in practical terms is learning to "read" the culturally encoded meanings — and the stresses, both aesthetic and ideological — embodied in landscapes and to understand the evolution of landscape art within the larger rhythms of cultural history. (Briggs)

381. Post-Apartheid Literature This course uses "apartheid" both as a denotative descriptor for the failed Nationalist Party schema for thorough separation of communities based on notions of "race" and as a connotative invocation suggesting other similar public policies of compartmentalization. A small foundational core of South African texts from several language communities which anticipate or represent a post-apartheid polity is read in tandem with several works, from very different historical and geopolitical moments, which also attempt to represent an emancipatory experience following an era or epoch of taxonomical madness. These texts are set in juxtaposition with texts by contemporary South African writers, such as Zoe Wicomb, Mark Behr, Nadine Gordimer, and Mongane Serote, and works by Radical Reconstruction and Holocaust writers. Preview of several films focusing on the complexities of post-"apartheid" reconciliation embodied in such instruments as the Chilean, Haitian, and Argentine Truth and Reconciliation Commissions. (Beard)

382. Theater and Society A study of dramatic tradition, stagecraft, and theatrical power, both on and off stage, in various historical periods and settings. Topics include not only plays and players, but also the influence of dramatic ways of thinking and imagining upon non-dramatic literature (satire, biography, journalism, the novel) and upon public ceremonials generally. (Briggs) *Not offered in 1996-97.*

384. Theories of Fiction A study of narrative structure and rhetoric, focusing on the models presented in structuralism and poststructuralism, psychoanalysis, and cultural critique. Authors include: the Russian formalists, Hillis Miller, Foucault, Todorov, Barthes, Derrida, Freud, Lacan, Lukacs, Bakhtin, Benjamin, Jameson. (Bernstein; cross listed as Comparative Literature 384) *Not offered in 1996-97.*

387. Allegory in Theory and Practice Spenser's *Faerie Queene* is studied for half the semester, for access to the allegorical mode of the Middle Ages and the Renaissance; a working knowledge of several different theories of allegory is developed; nineteenth- and twentieth-

century allegories include *The Scarlet Letter*, *The Crying of Lot 49*, and *Invisible Man*. (Hedley)

399. Independent Work: The Senior Essay Planning for the senior essay is normally done in the semester prior to the student's final semester, when the essay is written. (staff)

403. Supervised Work Advanced students may pursue independent research projects. Consent of the instructor and the major adviser is required. (staff)

Haverford College offers the following courses in English:

- 191b. Poetry Writing
- 192a. Fiction Writing
- 201a. Chaucer
- 210a. Understanding Poetry
- 245b. Jane Austen
- 253b. English Poetry from Tennyson to Eliot
- 258b. The Novel
- 260b. American Literature and Social Crisis
- 262a. The American Moderns
- 270b. Portraits in Black
- 274a. Modern Irish Literature
- 278a. Contemporary Women Writers
- 282b. Fictions of Empire
- 299. Junior Seminar
- 301b. Sex and Gender in the Middle Ages
- 325b. Topics in Shakespeare
- 356a. Topics in Autobiography
- 364a. Storytelling and the Ruins of Feminism
- 373a. Modernist Narratives
- 387b. The Post-Modern: Theory and Fiction
- 399b. Senior Conference

FINE ARTS

At Haverford College

Professors:

Charles Stegeman, Academie Royale des Beaux Arts (Brussels), at
Haverford College

R. Christopher Cairns, M.F.A., at Haverford College

William E. Williams, M.F.A., at Haverford College

Associate Lecturer:

Ava Blitz, M.F.A., at Bryn Mawr College (on leave, 1996-97)

Visiting Lecturer:

Phong Bui, New York Studio School, at Haverford College

The Fine Arts major at Haverford is coordinated with and complemented by courses in printmaking and other works on paper offered at Bryn Mawr College. The aims of the courses in fine arts are dual. For students not majoring in fine arts these courses aim to develop a visual perception of form and to present knowledge and understanding of it. For students intending to major in fine arts these courses are also intended to promote thinking in visual terms and to foster the skills needed to give expression to these in a form of art.

Fine arts majors are required to concentrate in either painting, sculpture, photography, or graphics. Fine arts 101; two 200-level courses outside the area of concentration; two 200-level and one 300-level course within the area of concentration; 399; three history of art courses to be taken at Bryn Mawr are required.

Honors are awarded to majors who show exceptionally high attainment in their course work and whose final exhibition is of superior quality.

101-109. Fine Arts Foundation Program Drawing, painting, photography, sculpture, graphic arts. Each subject is an introductory course dealing with the formal elements characteristic of the particular discipline as well as the appropriate techniques. Part of the work is from life model in drawing, painting, and sculpture. The course is structured so that students experience the differences as well as the similarities between the various expressions in art, thus affording a "perspective" insight into the visual process as a basis for artistic expression. (staff, Division III)

231a, b. Drawing (2-D) All Media Various drawing media such as charcoal, conté, pencil, ink, and mixed media; the relationship between media, techniques, and expression. Students are exposed to problems involving space, design, and composition as well as "thinking" in two dimensions. Part of the work is from life model. Prerequisite: Fine Arts 101 or permission of instructor. (Bui, Stegeman, Division III)

233a, b. Painting: Materials and Techniques Thorough examination of the problems of form, color, texture and their relationships; influence of the various painting techniques upon the expression of a work; the characteristics and limitations of the different media; control over the structure and composition of a work of art; and the relationships of form and composition, color and composition. Prerequisite: Fine Arts 101 or permission of instructor. (Bui, Stegeman, Division III)

241a, b. Drawing (3-D) All Media Treatment in essence of the same problems as Fine Arts 231a, b. However, some of the drawing media are clay modeling in half-hour sketches; the space and design concepts solve three dimensional problems. Part of the work is done from life model. Prerequisite: Fine Arts 101 or permission of instructor. (Cairns, Division III)

243a, b. Sculpture: Materials and Techniques The behavior of objects in space, the concepts and techniques leading up to the form in space, and the characteristics and limitations of the various sculpture media and their influence on the final work; predominant but not exclusive use of clay modeling techniques; fundamental casting procedures. Part of the

work is done from life model. Prerequisite: Fine Arts 101 or permission of instructor. (Cairns, Division III)

251a, b. Photography: Materials and Techniques The use of photography to record and express information and emotion; basic camera techniques and black/white processing with emphasis on the creation of prints. Prerequisite: Fine Arts 101 or permission of instructor. (Williams, Division III)

In the following Experimental Studio courses, the advanced student is encouraged to try new ideas and develop a personal expression based on a sound knowledge of drawing, painting, sculpture, photographic, or lithographic techniques.

331a, b. Experimental Studio (Drawing) Prerequisite: Fine Arts 231a or b or permission of instructor. (Bui, Stegeman)

333a, b. Experimental Studio (Painting) Prerequisite: Fine Arts 233a or b or permission of instructor. (Bui, Stegeman)

341a, b. Experimental Studio (Drawing) Prerequisite: Fine Arts 241a or b or permission of instructor. (Cairns)

343a, b. Experimental Studio (Sculpture) Prerequisite: Fine Arts 243a or b or permission of instructor. (Cairns)

351a, b. Experimental Studio (Photography) It is expected that students already have a sound knowledge of painting, sculpture, or photography techniques, and are at the stage where personal expression has become possible. Prerequisite: Fine Arts 101, 251 and permission of instructor. (Williams)

399. Senior Departmental Studies Study of a selected area of interest providing support for the Fine Arts major's senior show. The student reviews the depth and extent of experience gained to create a coherent body of work, expressive of his/her insights and skills, for the final exhibition. The work presented in this show is juried by a panel consisting of members of the Haverford-Bryn Mawr Fine Arts Department and a member of the History of Art department. (staff)

480a, b. Independent Study (staff)

Courses offered at Bryn Mawr College:

120. Foundation Printmaking: Relief Printing A seven-week course covering various techniques and approaches to the art of the woodcut and the linocut, emphasizing the study of design principles and the expressive potential of the medium to create a personal visual statement. (staff, Division III)

121. Foundation Printmaking: Silkscreen A seven-week course covering techniques and approaches to the art of silkscreen, including photo-silkscreen and the creation of art posters, emphasizing color or design, and the expressive potential of the medium to create a personal visual statement. (staff, Division III)

222. Basic Drawing Works on Paper An introduction to the materials and techniques of drawing and works on paper, including: graphite, pen and ink, charcoal, collage, and pastel—with focus on learning to “see” creatively, drawing from various subjects such as still life, landscape, interior, and portrait. Drawing from the model is not emphasized. (staff, Division III)

223. Watercolor Works on Paper An introduction to the techniques and application of transparent and opaque watercolor as well as mixed-media works on paper, emphasizing the creative and expressive use of color, form, and composition. Prerequisite: Permission of instructor based on portfolio showing drawing competence or a college drawing course. (staff, Division III)

224. Intaglio Printmaking Etching Various techniques and approaches to intaglio printmaking, including etching (soft and hard ground), aquatint, multi-plate color printing, engraving, drypoint, and monotypes. Prerequisite: Permission of instructor, or a college drawing course, or strong evidence of drawing ability (by portfolio). Foundation Printmaking: Relief and Silkscreen are recommended but not required. (staff, Division III) *Not offered in 1996-97.*

225. Printmaking: Materials and Techniques Further development of their creative ideas for students who have had the foundation sequence of Relief and Silkscreen or Etching. Students will work independently. (staff, Division III)

322. Advanced Drawing/Works on Paper A continuation of the issues explored in Basic Drawing/Works on Paper (222) in a less structured, more independent format. Prerequisite: Basic Drawing/Works on Paper (222), or equivalent based on drawing portfolio or permission of instructor. (staff)

326. Experimental Studio: Lithography Introduction to the concepts and techniques of black and white and color lithography. The development of a personal direction is encouraged. Prerequisites: a college drawing course and Foundation Printmaking or Intaglio Printmaking, or permission of instructor. (staff) *Not offered in 1996-97.*

403. Supervised Work A workshop for advanced students to develop their ideas for works on paper in the technique(s) of their choice, including relief printing, silkscreen, intaglio (etching), lithography, drawing, painting on paper (aqua-media), or any combination of the above. A cohesive body of work (portfolio) reflecting a specific direction is created by the end of the course. Prerequisites: a basic competence in technical skills in the area(s) of the student's choice, presentation of a portfolio of previous work, or permission of instructor. (staff)

FRENCH AND FRENCH STUDIES

Professors at Bryn Mawr College:

Grace M. Armstrong, Ph.D.

Michel Guggenheim, Ph.D., *Katharine E. McBride Professor and
Director of the Avignon Institut*

Catherine Lafarge, Ph.D., *Chairman and Major Adviser*

Mario Maurin, Ph.D., *Eunice Morgan Schenck 1907 Professor*

Senior Lecturer at Bryn Mawr College:

Janet Doner, Ph.D.

Assistant Professors at Haverford College:

Koffi Anyinéfa, Ph.D.

Jacques-Jude A. Lépine, Ph.D.

Duane Kight, Ph.D.

Lecturer at Bryn Mawr College:

Roseline Cousin, Ph.D.

Janet Morford, Ph.D.

Instructor at Bryn Mawr and Haverford Colleges:

Florence Echtman, M.A.

Affiliated Faculty:

Alain Silvera, Ph.D., *Professor of History*, at Bryn Mawr College (on leave, 1996-97)

The two-college Department of French combines the faculties of Haverford and Bryn Mawr Colleges to offer a unified program and a variety of courses and major options. The purpose of the major in French is to lay the foundation for an understanding and appreciation of French culture through its literature and language, the history of its arts, its thought, and its institutions. Course offerings are intended to serve those with particular interest in French literature, literary theory, and criticism, as well as those with particular interest in French and French-speaking lands from the perspective of history, culture, and political science. A thorough knowledge of French is a common goal for both orientations, and texts and discussion in French are central both to the program focusing on French history and culture (interdisciplinary concentration) and to the literary specialization (literature concentration).

In the 100-level courses, students are introduced to the study of French literature and culture, and special attention is given to the speaking and writing of French. Courses at the 200-level treat French literature and civilization from the beginning to the present day. Three 200-level courses are devoted to advanced language training, with practice in spoken as well as in written French. Advanced (300-level) courses offer detailed study either of individual authors, genres, and movements (literature concentration) or of particular periods, themes, and problems in French culture (interdisciplinary concentration). In both tracks, students are admitted to advanced courses after satisfactory completion of two semesters of 200-level courses in French.

French and French Studies

Students in all courses are encouraged to make use of the Language Learning Center. In French 001, 002, 003, 004, 005, 212, 260, and 262, the use of the laboratory and intensive oral practice in small groups directed by a department assistant form an integral part of the course. French majors find it valuable to supplement the work done at Bryn Mawr and Haverford by study abroad either during the summer at the *Institut* in Avignon or during the sophomore or junior year.

All students who wish to pursue their study of French must take a placement examination upon their entrance at Bryn Mawr and Haverford. Those students who begin French have two options: intensive study of the language in the intensive sections offered at Bryn Mawr (the sequence 001-002 Intensive Elementary; 005 Intensive Intermediate-102 Introduction to Literary Analysis or 005-105 Directions de la France contemporaine), or non-intensive study of the language at Bryn Mawr and Haverford in the non-intensive sequence (001-002; 003-004; 101-102 or 101-105). In either case, students who pursue French to the 200-level often find it useful to take as their first 200-level course either 212 Advanced Training in French or 260 Stylistique et traduction. Although it is possible to major in French using either of the two sequences, students who are considering doing so and have been placed at the 001 level are encouraged to take the intensive option.

Requirements in the major subject are (1) *Literature concentration*: French 101-102 or 101-105, French 212 or 260, four semesters of 200-level literature courses, two semesters of 300-level literature courses, and the two-semester Senior Conference.

(2) *Interdisciplinary concentration*: French 101-102 or 101-105; French 212 or 260; French 291 and 294, the core courses; a minimum of two *civilisation* courses to be chosen among 246, 296, 298, 325, with at least one course at the 300 level; two 200- or 300-level French literature courses, with one of these courses chosen at the 300 level; and the two-semester Senior Conference.

(3) *Both concentrations*: All French majors are expected to have acquired fluency in the French language, both written and oral. Unless specifically exempted by the department, they are required to take French 212 or 260. Students placed at the 200-level by departmental examinations are exempted from the 100-level requirements. Occasionally, students may be admitted to seminars in the graduate school. Particularly well-qualified students may undertake work toward the joint A.B./M.A. degree in French. Such a program may be completed in four or five years and is undertaken with the approval of the department and of the dean of the Graduate School of Arts and Sciences.

Undergraduates who have excelled in French by maintaining a minimum grade of 3.6 may, if invited by the department, write an honors thesis during the two semesters of their senior year. Departmental honors may also be awarded for excellence in both the oral and written comprehensive examinations at the end of the senior year.

Requirements for a French minor are French 101-102 or 101-105; French 212 or 260; and four 200-level or 300-level courses. At least one course must be at the 300 level. The minor is not available at Haverford.

Students majoring in French may, by a joint recommendation of the deans of the Colleges and the Department of French, be allowed to spend their junior year in France under one of the junior year plans approved by their respective college: those organized by Sweet Briar, BCA, and Wellesley Colleges are approved by both Colleges, and additional programs are accepted separately by Bryn Mawr and Haverford.

Students wishing to enroll in a summer program may apply for admission to the *Institut d'Etudes françaises d'Avignon*, held under the auspices of Bryn Mawr. The *Institut* is designed for selected undergraduates and graduate students with a serious interest in French literature and culture, most particularly for those who anticipate professional careers requiring a knowledge of the language and civilization of France. The curriculum includes general and advanced courses in French language, literature, social sciences, history, and art. The program is open to students of high academic achievement who have completed a course in French at the third-year level or the equivalent.

Students of French are also encouraged to take advantage of the many opportunities offered on both campuses for immersion in the language and culture of France: residence in the French House in Haffner at Bryn Mawr; the weekly film series; and the weekly *Table française* at Haffner, Bryn Mawr, and the Dining Center, Haverford.

The Department of French offers a certification program in secondary teacher education. For more information, see the description of Education in this catalogue.

001-002. Elementary French The speaking and understanding of French are emphasized particularly during the first semester. The work includes regular use of the language laboratory and is supplemented by intensive oral practice sessions. The course meets in intensive (nine hours each week) and non-intensive (six hours each week) sections. This is a year-long course; both semesters are required for credit. (Cousin, Doner, Echtman, Kight)

003-004. Intermediate French The emphasis on speaking and understanding French is continued, texts from French literature and cultural media are read, and short papers are written in French. Students use the language laboratory regularly and attend supplementary oral practice sessions. The course meets in non-intensive (three hours each week) sections which are supplemented by an extra hour/week with an assistant. This is a year-long course; both semesters are required for credit. (Anyinéfa, Cousin, Echtman, Lafarge, Maurin, Selini)

005. Intensive Intermediate French The emphasis on speaking and understanding French is continued; literary and cultural texts are read; and increasingly longer papers are written in French. In addition to the three class meetings each week, students develop their skills in an additional group session with the professors and in oral practice hours with assistants. Students use the language laboratory regularly. This course prepares students to take 102 or 105 in Semester II. Open only to graduates of Intensive Elementary French or to students specially placed by the department. Students who are not graduates of Intensive Elementary must take either 102 or 105 in Semester II to receive credit. (Armstrong, Doner)

101. Introduction à l'analyse littéraire et culturelle Presentation of essential problems in literary and cultural analysis by close reading of works selected from various periods and genres (drama, poetry, short stories, and novellas). Participation in discussion and practice in written and oral expression are emphasized, as are grammar review and laboratory exercises. (Anyinéfa, Kight, Lafarge, Maurin, Division III)

102. Introduction à l'analyse littéraire et culturelle (suite) Continued development of students' expertise in literary and cultural analysis by emphasizing close reading and oral and written analyses of increasingly complex works chosen from various genres and periods of French/Francophone writing (ie., Metropolitan France, Africa). Readings begin with comic theatre of the seventeenth and eighteenth centuries and build to increasingly complex *nouvelles*, poetry, and novels of the nineteenth and twentieth centuries. Participation in guided discussion and practice in oral/written expression continue to be emphasized, as are grammar review and laboratory exercises. Prerequisite: French 005 or 101. (Anyinéfa, Armstrong, Division III)

105. Directions de la France contemporaine An examination of contemporary society in France and Francophone cultures as portrayed in recent documents and film. Emphasizing the tension in contemporary French-speaking societies between tradition and change, the course focuses on subjects such as family structures and the changing role of women, cultural and linguistic identity, an increasingly multiracial society, the individual and institutions (religious, political, educational), and *les loisirs*. In addition to the basic text and review of grammar, readings are chosen from newspapers, contemporary literary texts, magazines, and they are complemented by video materials. Offered in Semester II. Prerequisite: French 005 or 101. (Cousin, Kight, Morford, Division III)

201. Le chevalier, la dame et le prêtre: littérature et public du Moyen Age A study, through selected works read in modern French version, of the principal literary genres of medieval literature: saint's life, epic, *lai*, *roman courtois*, *fabliau*, lyric poetry, religious and secular drama, and historical romances. (Armstrong, Division III) *Not offered in 1996-97.*

202. La Renaissance A study of the development of Humanism, the concept of the Renaissance, and the Reformation. The course focuses on representative works, with special attention given to the prose of Rabelais and Montaigne, the *Conteurs*, the poetry of Marot, Scève, the Pléiade, and d'Aubigné. (Division III) *Not offered in 1996-97.*

203. Le Grand Siècle Representative authors and literary movements placed within their cultural context, with special attention to development of the theater (Corneille, Molière, and Racine) and women writers of various genres. (Lépine, Division III) *Not offered in 1996-97.*

204. Le Siècle des lumières Representative texts of the Enlightenment and the pre-Romantic movement, with emphasis on the development of liberal thought as illustrated in the *Encyclopédie* and the works of Montesquieu, Voltaire, Diderot, and Rousseau. (Lafarge, Division III) *Not offered in 1996-97.*

205. Du Romantisme au Naturalisme: Studies in French Prose From Chateaubriand and Romanticism to Zola and Naturalism, a study of selected novels and plays. (Maurin, Division III)

206. Les maîtres de l'époque moderne: missionnaires et cannibales A study of selected works illustrating the principal literary movements from the turn of the century to the present. Gide, Proust, Valéry,

Claudel; Surrealism, Existentialism, the Theater of the Absurd, the New Novel. (Maurin, Division III)

212. Advanced Training in French Language A general review of the most common difficulties of the French language, with intensive drill in syntax patterns and vocabulary. Practice in composition, conversation, and diction. (Lépine)

215. Solitaires et étrangers du Grand Siècle aux Temps Modernes A study of the individual (Molière's misanthrope, the picaresque hero, the romantic egotist, Camus' stranger, and Beckett's vagabond), from states of withdrawal or reverie to alienation and/or revolt, in quest of identity as seen in works representing a variety of interactions with society. (staff, Division III) *Not offered in 1996-97.*

216. Le Rire An examination of laughter and its role in French literature through the ages. The universals of the comic tradition—recurrent techniques, stock characters, evergreen themes—as well as their adaptation within a particular context, whether social, political, historical, or literary, are considered. Works are selected from different periods (medieval through twentieth century), from different genres (drama, tales, novels, poetry), and for the twentieth century, from two media (print and film). (Doner, Division III) *Not offered in 1996-97.*

246. Medieval Women A study of women in selected societies of medieval Europe (from Rome to Early Renaissance) with particular attention to the historical activities and literary portrayal of women in the twelfth century. May be offered for interdisciplinary major when written work is presented in French. In English with an extra weekly session in French. (Armstrong and Brand, Division III; cross listed as History 246)

250. Introduction à la littérature francophone A study of male and female writers of Black Africa, Arab North Africa, and the Caribbean. (Anyinéfa, Division III)

260. Stylistique et traduction Intensive practice in speaking and writing. Conversation, discussion, advanced training in grammar and stylistics, translation of literary and non-literary texts, and original composition. (Cousin, Doner)

262. Débat, discussion, dialogue This advanced study of oral communication develops students' linguistic skills in narration, hypothesizing, persuasion or counselling, debate, negotiation, etc. Such skills will be nurtured through enrichment of vocabulary, reinforcement of accuracy in manipulation of complex grammatical structures, and enhancement of discursive strategies. The authentic material (both print and film) which serves as the basis of analytical discussion will reflect issues of contemporary importance; for example, France and Third World Francophone countries. Prerequisite: 212 or 260. *Not offered in 1996-97.*

280. Analyses sémiologiques de la culture française: stéréotypes et réalités A study of how French society represents itself both to the French and to others and of the discrepancies between this representation and the more complex, evolving reality. Conducted through various

media (popular and serious literature, films, art, theatre, computer media, song, television, talk shows, pedagogical texts, etc.) this study focuses on representation and reality in political and social life, national history, the European Union, Parisian and provincial contexts with their microcultures, finance, fashion, and sexual mores. (Lépine, Division III)

291. La Civilisation française A survey of French cultures and society from the Revolution to De Gaulle's Republic. Prerequisite: French 101-102 or 101-105. Serves as one of the core courses for the interdisciplinary concentration. (staff, Division III; cross listed as History 291) *Not offered in 1996-97.*

294. La Civilisation française: les origines A study of the historical development of French civilization from its medieval origins to the end of Louis XIV's reign. Emphasis on the interconnections among politics, history of ideas, and aesthetics. Among topics of particular importance treated in this course are: romanesque vs. Gothic art and architecture, medieval theocentrism vs. Renaissance humanism, and the political, scientific, and philosophical foundations of French Classicism. Serves as one of the introductory courses for the interdisciplinary concentration. (staff, Division III) *Not offered in 1996-97.*

295. La Ville de Paris au XVIIe et au XVIIIe siècle (Lafarge, Division III; cross listed as Growth and Structure of Cities 295) *Not offered in 1996-97.*

298. La France depuis 1945 This in-depth analysis of contemporary France, at a more advanced level than 105, explores the political, social, and cultural foundations of today's France from 1945 on. The course examines the main historical events (reconstruction after World War II, the colonial wars in Indochina and North Africa, De Gaulle's foundation of the Fifth Republic, the socialist experiment in 1981), and the history of ideas (the Sartre-Camus opposition, structuralism, theoretical trends in literature, cinema, and the theater). Includes an introduction to the cultural variety of Francophonie. (Morford, Division III)

302. Le printemps de la parole féminine: femmes écrivains des débuts This study of selected women authors from the French Middle Ages, Renaissance, and Classical period — among them Marie de France, the *trobairitz*, Christine de Pisan, Marguerite de Navarre, and Madame de Lafayette — examines the way in which they appropriate and transform the male writing tradition and define themselves as self-conscious artists within or outside it. Particular attention will be paid to identifying recurring concerns and structures in their works and to assessing their importance to female writing: among them, the poetics of silence, reproduction as a metaphor for artistic creation, sociopolitical engagement. (Armstrong, Division III) *Not offered in 1996-97.*

306. Le roman au XVIIIe siècle A close study of works representative of the eighteenth-century French novel, with special attention to the memoir novel (Marivaux and Prévost), the philosophical novel (Diderot and Voltaire), and the epistolary novel (Rousseau, Laclos, and Rétif de la Bretonne). (Lafarge, Division III) *Not offered in 1996-97.*

307. Le Théâtre du XVIII^e siècle: Marivaux, Beaumarchais A study of the two most famous writers of comedies in the eighteenth century and of the contributions of authors like Lesage, Voltaire, and Diderot, their place in the history of the genre, and an explanation of why the theater was one of the great passions of the century. (Lafarge, Division III)

308. Baudelaire A study of the *Fleurs du Mal* and the *Petits Poèmes en prose*, with emphasis upon the *modernité* of themes and techniques. Attention is also given to the *Paradis artificiels* and a selection of Baudelaire's critical writings as primary sources of later definitions of the nature and function of the symbol in poetry and other arts. (Maurin, Division III) *Not offered in 1996-97.*

311. Métamorphoses du spectacle théâtral au XX^e siècle A close examination of selected works of major French dramatists from Claudel to Beckett and Genet, with emphasis on the dialectic of heroism and nihilism, tradition and revolt in the vision of the theater as an art form, and innovative techniques of stagecraft. Special attention is given to twentieth-century adaptations of Greek myths, the influence of surrealism and existentialism, *le théâtre de l'absurde*, and the diversity of the contemporary *avant-garde*. (staff, Division III) *Not offered in 1996-97.*

312. Advanced Topics in French Literature Topics for 1996-97: *Mimésis*, *sacrifice*, *littérature* (Lépine, Division III) and *Le Maghreb littéraire* (Anyinéfa, Division III)

315. Femmes écrivains du XIX^e et du XX^e siècle: George Sand, Colette, Simone de Beauvoir A study of the fiction of these three major women writers, each of whom addressed some of the issues of feminism, but were more largely concerned with the problem of identity at the height of the Romantic era, *La Belle Epoque*, and the Age of Existentialism. (Maurin, Division III) *Not offered in 1996-97.*

325, 326. Etudes avancées de civilisation An in-depth study of a particular topic, event, or historical figure in French *civilisation*. The seminar topic rotates among the following subjects: La Révolution française: histoire, littérature et culture; L'Environnement naturel dans la culture française; Mal et valeurs éthiques; le cinéma et la politique, 1940-1968; le nationalisme en France et dans les pays francophones; Approches historiques et ethnographiques de la civilité. (Morford, Division III)

350. Voix médiévales et échos modernes A study of selected nineteenth- and twentieth-century works inspired by medieval subjects, such as the Grail and Arthurian legends, and by medieval genres, such as the *roman*, saints' lives, or the miracle play. Included are works by Hugo, Flaubert, Claudel, Anouilh, Bonnefoy, Genevoix, Gracq, Yourcenar. (Armstrong, Division III)

355. Variations sur le récit moderne: ruses et ressources An intensive study of problems in narrative techniques as found in representative examples of romance, novel, *nouvelle*, and short story, with emphasis on the handling of narrative time, the role of the narrator, and the fictional modes of chronicle, diary, *mémoires*, and epistolary novel. (Armstrong, Division III) *Not offered in 1996-97.*

Geology

398-399. Senior Conference A weekly seminar examining representative French and Francophone literary texts and cultural documents from all periods and the interpretive problems they raise. Close reading and dissection of texts, complemented by extensive secondary readings from different schools of interpretation, prepare students to analyze others' critical stances and to develop their own. In addition to short essays and oral presentations, students write a long paper each semester and end the year with Senior Comprehensives, which consist of an oral *explication* of a French literary text or cultural document and a four-hour written examination. (Armstrong, Lafarge)

Courses which may be offered by current faculty as student interest and circumstances permit:

- 220. Dadaïsme et Surréalisme (Maurin)
- 296. Littérature, Histoire, et Société de la Renaissance à la Révolution
- 301. Le récit courtois (Armstrong)
- 307. Marivaux et Giraudoux (Lafarge)
- 309. Du symbolisme au naturalisme (Maurin)
- 313. Poètes du XXe siècle (Maurin)
- 319. Verlaine, Rimbaud (Maurin)
- 352. La Vision de la femme dans la littérature française (Lafarge)
- 354. Ecrivains engagés de Montaigne à Sartre

GEOLOGY

Professors:

Maria Luisa Crawford, Ph.D., *Bryn Mawr College Professor of Science and Environmental Studies and Major Adviser*

William A. Crawford, Ph.D., *Chairman*

William Bruce Saunders, Ph.D.

Assistant Professor:

Mark Johnsson, Ph.D., *Director of the Environmental Sciences Concentration*

Research Associate:

Keddy Yemane, Ph.D.

The department seeks to make students more aware of the physical world around them and of its development through time. The subject includes a study of the materials of which the earth is made; of the physical processes which have formed the earth, especially near the surface; of the history of the earth and its organisms; and of the various techniques necessary to investigate earth processes and history. Each introductory course is designed to cover a broad group of topics from a different perspective. Students may elect any of the 100-level courses. Geology applies many scientific disciplines to investigate problems of the earth. Fieldwork is an essential part of geologic training and is part of many classes and of most independent research projects.

Fourteen courses are required for the major: Geology 101 or 103, 102, 201, 202, 203, 204, and 205; two courses each in two of the following:

chemistry, mathematics, physics; Geology 403; and either two advanced geology courses or one advanced geology course and an additional upper level course in chemistry, mathematics, or physics.

Additional courses in the allied sciences are strongly recommended and are required by most graduate schools. A student who wishes to follow a career in geology should plan to attend a summer field course, usually following the completion of the 200-level courses.

A minor in geology consists of Geology 101 or 103, 102 and any four of the following: Geology 201, 202, 203, 204, 205, 206, or 236.

The Environmental Sciences Concentration at Bryn Mawr allows students to explore the interactions between the geosphere, biosphere, and human societies. The concentration, offered jointly by the Departments of Anthropology, Biology, and Geology, takes the form of concentrations in each of the three departments. The Environmental Concentration in Geology consists of the five core courses required of all environmental science concentrators—Biology 101, 220, Anthropology 101, Geology 103, and the senior seminar in environmental studies—as well as twelve courses specific to the Environmental Concentration in Geology: Chemistry 101 or 103, 104, Mathematics 101, 102, Geology 101 or 102, 201, 202, 205, 315, 401, one additional 300-level course in Geology or Biology, and one additional course in Anthropology. Students are encouraged to take additional environmentally oriented courses in the social sciences and the humanities, such as General Studies 102, Economics 105, 213, 214, and 234, Cities 185, and Political Science 222.

All geology majors undertake a research project (Geology 403) in the fall or spring semester of the senior year. A student may elect to do a longer, two-semester project with the approval of the department. Honors are awarded to students who have outstanding academic records in geology and allied fields, and whose research is judged by the faculty of the department to be of the highest quality.

101. How the Earth Works An introduction to the study of planet Earth—the materials of which it is made, the forces that shape its surface and interior, the relationship of geological processes to people, and the application of geological knowledge to the search for useful materials. Laboratory and field work focus on learning the tools for geological investigations and applying them to the local area and selected areas around the world. Three lectures and one afternoon of laboratory or field work each week. One required weekend field trip. (M. Crawford, Division III)

102. Earth History The history of the earth from its beginning and the evolution of the living forms which have populated it. Three lectures, one afternoon of laboratory a week. A required three-day field trip is taken in the late spring. An extra fee is collected for this trip. (Saunders, Division III)

103. Introduction to Earth System Science and the Environment This integrated approach to studying the Earth focuses on interactions between geologic, biologic, climatic and oceanographic processes. The first half of the course provides a basic understanding of systems operating within the geosphere, atmosphere, hydrosphere, and biosphere. The second half is devoted to developing an understanding of the interactions between these systems, including the consequences of

population and economic growth, industrial development, and land use changes. The course consists of two lectures and one lab per week, and includes a required three-day field trip for which an extra fee is collected. (Johnsson, Division IIL; cross listed as Growth and Structure of Cities 103)

201. Crystallography and Optical Mineralogy The study of morphological and optical crystallography. Description of the external symmetry of crystalline solids and instruction in the use of the polarizing microscope for use in identifying minerals. Crystal chemistry, representative ionic and covalent atomic structures, and silicate polymer repeat groups. Lecture three hours, laboratory three hours a week. Prerequisite: Geology 101 or 103 or Chemistry 101 or 103 and 104. (W. Crawford, Division IIL)

202. Descriptive Mineralogy and Mineral Paragenesis Descriptive and determinative hand specimen and optical mineralogy. The relation between the physical properties of minerals and their structures and chemical composition. The occurrence and the petrography of typical mineral associations. Lecture three hours, laboratory three hours a week. Prerequisite: Geology 201. (W. Crawford, Division IIL)

203. Paleobiology Biology, evolution, ecology, and morphology of the major marine invertebrate fossil groups. Three lectures and one three-hour laboratory per week. A semester-long research project introducing microcomputer-based morphometric analysis will be based on material collected on a three-day trip to the Tertiary deposits of the Chesapeake Bay. (Saunders, Division IIL)

204. Structural Geology Recognition and description of deformed rocks; map reading; introduction to mechanics and patterns of deformation. Lecture three hours, laboratory or field work three hours a week. Prerequisites: Geology 101 or 103, 102, and Mathematics 101. Offered in alternate years. (staff, Division IIL)

205. Sedimentary Materials and Environments An introduction to the principles of sedimentary petrology, stratigraphy, facies analysis, and basin analysis. The first portion of the course explores the controls on composition and texture of sedimentary materials—clastic, carbonate, and chemical. The second portion is devoted to the study of sedimentology and sedimentary structures, and the construction of facies models to aid in environmental reconstructions. Finally, the first two parts of the course are placed in a global context through an introduction to sedimentary basin analysis. Two lectures and one lab per week, with several field trips. Prerequisites: Geology 101 or permission of instructor. Recommended: Geology 202 and 203. (Johnsson, Division IIL)

206. Energy, Resources and Public Policy. An examination of issues concerning the supply of energy and raw materials required by humanity. This includes an investigation of requirements and supply of energy and of essential resources, of the geological framework that determines resource availability, and of the social, economic, and political considerations related to energy production and resource development. Prerequisite: one year of college science. Offered in alternate years. (staff, Division II)

236. Evolution The development of evolutionary thought is generally regarded as the most profound scientific event of the nineteenth century. Although its foundations are primarily in biology and geology, the study of evolution and its implications extends to many disciplines. This course emphasizes the nature of evolution in terms of process, product, patterns, historical development of the theory, and its application to interpretations of organic history. Prerequisites: a 100-level science course or permission of instructor. (Saunders, Gardiner, Davis, Yarczower, and staff; cross listed as Biology and Psychology 236)

301. Geochemistry of Crystalline Rocks Principles and theory of various aspects of geochemistry to include elementary thermodynamics and phase diagrams, an introduction to isotopes, and applications of chemistry to the study of igneous and metamorphic rocks. Three lectures per week, occasionally augmented by field work. Prerequisites: Geology 202 and Chemistry 101 or 103, and 104 or permission of instructor. (W. Crawford)

302. Low Temperature Geochemistry The geochemistry of earth surface processes. Emphasis is on the chemistry of surface waters, atmosphere-water, and water-rock interactions. Fundamental principles are applied to natural systems with particular focus on chemical sediments, diagenesis, and environmental chemistry. Three hours of lecture per week and problem sessions. Prerequisites: Chemistry 103, 104 and Geology 202 or two 200-level chemistry courses or permission of instructor. Offered in alternate years. (M. Crawford) *Not offered in 1996-97.*

303. Advanced Paleobiology Principles, theory, and application of various aspects of paleobiology such as evolution. Three lectures, three hours of laboratory a week (with occasional field work). Prerequisite: Geology 203 or permission of instructor. (Saunders)

304. Tectonics Plate tectonics and continental orogeny are reviewed in light of the geologic record in selected mountain ranges and certain geophysical data. Three lectures and three hours of laboratory or field work a week. Prerequisite: Geology 204. Offered in alternate years. (staff) *Not offered in 1996-97.*

305. Igneous and Metamorphic Petrology The origin, mode of occurrence, and distribution of igneous and metamorphic rocks. The focus is on the experimental and field evidence for interpreting rock associations and the interplay between igneous and metamorphic rock genesis and tectonics. Three lectures and three hours of laboratory or equivalent field work a week. Occasional weekend field trips. Prerequisites: Geology 201, 202, and Chemistry 101 or 103, and 104. (staff)

306. Advanced Sedimentary Geology For those students wishing to pursue advanced study of sedimentary petrology, facies analysis, and basin analysis. Topics include processes controlling the composition of siliciclastic rocks, detailed depositional models and facies, sequence stratigraphy, and basin analysis. An emphasis is placed on global controls on sedimentation and the reading of the sedimentary record to interpret ancient paleogeographic relations, tectonics, and climate. Two lectures and one lab per week, with several field trips. Students prepare

term projects which are presented in class. Prerequisites: Geology 202 and 205; or permission of the instructor. (Johnsson)

308. Principles of Economic Geology An introduction to the formation, localization, and exploitation of non-fuel mineral deposits. Three lectures, three hours of laboratory a week. Prerequisites: Geology 202 and either 301, 302, or 305. (staff) *Not offered in 1996-97.*

315. Advanced Earth System Science An integrated approach to studying the Earth through examination of the interactions between geologic, biologic, climatic, and oceanographic processes. The principal characteristics of dynamic systems are explored through quantitative examination of the global carbon, nitrogen, and sulfur cycles, the Earth's heat budget and its control on atmosphere/ocean circulation, activities to perturb the natural systems and the associated policy considerations will be stressed. Two lectures per week, including student-led seminars, and computer modeling projects. Prerequisites: Geology 103, Chemistry 103, 104; or permission of the instructor. Offered in alternate years. (Johnsson) *Not offered in 1996-97.*

336. Evolutionary Biology: Advanced Topics A seminar course on current issues in evolution. Discussion based on readings from the primary literature. Topics vary from year to year. One three-hour discussion a week. Prerequisite: Geology 236 or permission of instructor. (Saunders, Gardiner, staff; cross listed as Biology 336)

403. Independent Research An independent project in the field, laboratory, or library culminating in a written report and oral presentation. (staff)

Graduate seminars in the Department of Geology are open to qualified undergraduates with the permission of the instructor, the student's dean, and the dean of the Graduate School of Arts and Sciences.

GERMAN AND GERMAN STUDIES

Associate Professor:

Azade Seyhan, Ph.D., *Chairman*, at Bryn Mawr College

Assistant Professors:

Mahafarid Lashgari, Ph.D., at Haverford College

Ulrich Schönherr, Ph.D., at Haverford College

Instructor:

Eva-Maria Kuttentberg, M.A., at Bryn Mawr College

Affiliated Faculty:

Jane Caplan, Ph.D., *Marjorie Walter Goodhart Professor of History*, at Bryn Mawr College

Robert J. Dostal, Ph.D., *Provost and Rufus M. Jones Professor of Philosophy*, at Bryn Mawr College

Bryn Mawr College

Richard Freedman, Ph.D., *Associate Professor of Music*,
at Haverford College
Carol Hager, Ph.D., *Associate Professor of Political Science*,
at Bryn Mawr College
Christiane Hertel, Ph.D., *Associate Professor of History of Art*,
at Bryn Mawr College
Barbara Miller Lane, Ph.D., *Professor of History and Andrew W. Mellon*
Professor in the Humanities, at Bryn Mawr College
John Spielman, Ph.D., *Professor of History*, at Haverford College
Kathleen Wright, Ph.D., *Professor of Philosophy*, at Haverford College

The Bi-College Department of German combines the faculty of Bryn Mawr and Haverford Colleges to offer a broadly conceived German Studies program incorporating a variety of courses and major options. The purpose of the major in German is to lay the foundation for a critical understanding of German culture through its language, literature, arts, institutions, and politics and in its contemporary international context. The German program aims, through various methodological approaches to the study of another language and literature, to foster critical thinking, expository writing skills, understanding of the diversity of culture(s), and the ability to respond creatively to the challenges posed by cultural difference in an increasingly multicultural world. Course offerings are intended to serve both those with particular interests in German literature and literary theory and criticism and those interested in studying German and German-speaking cultures from the perspective of history, history of ideas, history of art, history of religion, philosophy, politics, and institutions.

A thorough knowledge of German is a common goal for both major concentrations. Many German majors can and are encouraged to take courses in interdisciplinary areas, such as Comparative Literature, History, Political Science, Philosophy, Music, and Feminist and Gender Studies, where they read recent works of criticism in these areas in the original German.

The German major consists of ten units. Even if a student begins her or his major studies at a level above the 100-level course, s/he must normally complete ten units. All courses at the 200 or 300 level can serve as part of a departmental major program, either in a literature concentration or in a German studies concentration. A literature concentration normally follows the sequence 201 and/or 202; 214, 215, plus additional courses to complete nine of the ten units, ideally two of them at the 300 level; and finally one semester of Senior Conference. A German studies major normally includes 223, 224; one 200-level course in German literature; three courses (ideally two of these are at the 300 level) in subjects central to aspects of German culture, history, or politics; and one semester of Senior Conference. Within each concentration courses need be selected so as to achieve a reasonable breadth, but also a degree of logical coherence. Within departmental offerings, German 201 and 202 (Advanced Training) strongly emphasize the development of conversational, writing, and interpretive skills. German majors are encouraged, when possible, to take work in at least one foreign language other than German.

Any student whose grade point average in the major at the end of the senior year is 3.8 or above qualifies by grade point average alone for departmental honors. Students whose major grade point average at the

end of the senior year is 3.6 or better, but not 3.8, are eligible to be discussed as candidates for departmental honors. A student in this range of eligibility must be sponsored by at least one faculty member with whom s/he has done course work, and a minimum of two faculty members must read some of the student's advanced work and agree on the excellence of the work in order for departmental honors to be awarded. In the case of sharp difference of opinion, additional readers will serve as needed.

A minor in German and German Studies at Bryn Mawr College consists of seven units of work. To earn a minor, students are normally required to take German 201 or 202, four additional units covering a reasonable range of study topics, of which at least one unit is at the 300 level. Additional upper-level courses in the broader area of German studies may be counted toward the seven units with the approval of the department.

Students majoring in German are encouraged to spend some time in German-speaking countries in the course of their undergraduate studies. Various possibilities are available: summer work programs, DAAD (German Academic Exchange) scholarships for summer courses at German universities, and various junior year abroad programs.

Students of German are also encouraged to take advantage of the many opportunities on both campuses for immersion programs in German language and culture: residence in Haffner Hall foreign language apartments at Bryn Mawr College; the German Film Series; the German Lecture Series; the weekly *Stammtisch*, and more informal conversational groups attended by faculty.

001, 002. Elementary German Meets four hours a week with the individual class instructor, two hours with student drill instructors. This is a year-long course; both semesters are required for credit. (staff)

101, 102. Intermediate German Thorough review of grammar, exercises in composition and conversation. Study of selected literary and cultural texts and films from German-speaking countries. Two semesters. (staff)

201, 202. Advanced Training: Introduction to German Studies An examination of the development of conversational, writing, and interpretive skills through an introductory study of German political, cultural, and intellectual life and history including folklore, fashion, mass media, public debate, institutional practices, and crosscultural currents. Course content varies. Two semesters; each can be taken independently, both are recommended. (Schönherr, Division III)

205, 206. Introduction to Genre Studies Introduction to the fundamentals of literary history through a discussion of various genres. Two semesters; each can be taken independently. (Schönherr, Seyhan, Division III) *Not offered in 1996-97.*

209. Introduction to Literary Analysis An introduction to various methods of interpreting literary texts informed by philosophical, critical, political, and psychoanalytic theories. (Seyhan, Division III; cross listed as Comparative Literature 209 and Philosophy 209) *Not offered in 1996-97.*

212. Readings in German Intellectual History Reading and discussion of major texts in German intellectual history, introducing representative works of Lessing, Kant, Hegel, Marx, Nietzsche, and Freud. Emphasis on developing advanced reading and critical skills and acquiring the cultural vocabulary and concepts of the humanistic disciplines in German-speaking countries. Topic for 1996-97: French Revolution and German Culture (Schönherr, Seyhan, Division III)

214, 215. Survey of Literature in German A study of the major periods of German literature within a cultural and historical context, including representative texts for each period. (staff, Division III) *Not offered in 1996-97.*

223, 224. Topics in German Cultural Studies Course content varies. Most recent offering: Berlin. (staff, Division III) *Not offered in 1996-97.*

262. Film and the German Literary Imagination An overview of cinematic "translations" of literary works in a cultural and historical context. (Seyhan, Division III)

299. Marginality in German Society The experience of the foreign; representations of outsiders and minorities in German culture; modern German literature by non-Germans. (Seyhan, staff, Division III)

305. Modern German Drama Theory and practice in selected plays of major German, Austrian, and Swiss playwrights. (Seyhan, staff, Division III) *Not offered in 1996-97.*

320. Topics in German Literature Course content varies. Some of the previous course offerings were Romantic Literary Theory and Literary Modernity, the Experience of the Foreign in German Culture, and the Function of Music in German Literature. Topic for 1996-97: Contemporary Fiction - 1970 to the Present; Nietzsche and Modern Cultural Criticism. (Schönherr, Seyhan, Division III; cross listed as Comparative Literature 320)

399. Senior Conference Topics chosen in consultation with students majoring in German. (staff)

403. Independent Study (staff)

In addition to courses that focus on the study of German language, culture, and civilization which are given by members of the Department of German, courses given by members of other departments may be offered in cooperation with the Department of German and designed in such a way that students concentrating on German Studies can earn major or minor credit for them. This is particularly true of courses in Comparative Literature, Philosophy, History, History of Art, Theater, Film, Music, and Feminist and Gender Studies.

The following courses at Bryn Mawr College are offered in cooperation with the German Department:

Comparative Literature 210. Women and Opera in Translation
Comparative Literature 293. The Play of Interpretation

Greek

Comparative Literature 323. Culture and Interpretation
Comparative Literature 350. Romanticism: Crisis and Critique
History 247, 248. Germany: 1815 to the Present
History 318, 319. Topics in Modern European History
History of Art 237. Northern Renaissance
History of Art 348. Topics in German Art
Philosophy 222. Aesthetics
Political Science 308. German Politics
Political Science 321. Technology and Politics

The following Haverford courses are offered in cooperation with the German department:

History 227. The Age of Absolutism
Music 230a. History of Music I: The European Musical Heritage to 1750
Music 231b. History of Music II: The European Musical Heritage from 1750 to 1920
Philosophy 243a. Twentieth-century Continental Philosophy
Philosophy 325b. Hegel
Philosophy 332a. Topics in Twentieth-Century Continental Philosophy: Philosophy of Human Sciences

GREEK

Professors:

Gregory W. Dickerson, Ph.D., *Chairman and Major Adviser*
Richard Hamilton, Ph.D., *Paul Shorey Professor*
Mabel L. Lang, Ph.D., *Katharine McBride Professor*

Assistant Professor of Greek and Latin:

T. Corey Brennan, Ph.D.

The department's sequence of courses in the ancient Greek language is designed to acquaint the students with the various aspects of Greek culture through a mastery of the language and a comprehension of Greek history, mythology, religion, and the other basic forms of expression through which the culture developed. The works of poets, philosophers, and historians are studied both in their historical context and in relation to subsequent Western thought. In addition the department regularly offers one or more courses on Greek history, myth, literature, or religion for which knowledge of the Greek language is not required.

Requirements in the major are 001, 002, 101, 104, 201, 202, and two courses at the 300 level. Also required are three courses to be distributed as follows: one in Greek history, one in Greek archaeology, and one in Greek philosophy. The major is completed with two comprehensive examinations: one in sight translation from Greek to English and one in Greek literature and history.

Prospective majors in Greek are advised to take Greek 001 and 002 in the freshman year. For students entering with Greek there is the possibility of completing the requirements for both A.B. and M.A.

degrees in four years. Qualified seniors may undertake independent research leading to a degree with honors. Those interested in pursuing advanced degrees are advised to have a firm grounding in Latin.

Requirements for a minor in Greek are 001, 002, 101, 104, 201, and 202. See also majors in Classical Languages and Classical Studies (page 94).

Students of Classics are encouraged to consider a term of study during the junior year at the College Year in Athens or the Intercollegiate Center in Rome.

001, 002. Elementary Greek Semester I: Elements of grammar and prose composition, with short readings from a variety of ancient authors. Semester II: Plato's *Apology* and *Crito*, and Lysias' first oration. This is a year-long intensive course, meeting seven hours a week; both semesters are required for credit. (Dickerson)

101. Herodotus Book I of Herodotus' *History* and weekly prose composition. (Hamilton, Division III)

103. New Testament Selections from the Gospels, Acts, and Epistles. (Hamilton, Division III) *Not offered in 1996-97.*

104. Homer Several books of the *Odyssey* are read and verse composition is attempted. A short essay is required. (Dickerson, Division III)

201. Plato and Thucydides The *Symposium* and the history of the Sicilian Expedition. (Brennan, Division III)

202. The Form of Tragedy Euripides' *Bacchae*, Sophocles' *Oedipus Tyrannus*, Aristotle's *Poetics*, and a literary paper. (Dickerson, Division III)

398, 399. Classics Senior Seminar A full year course for senior majors in Greek, Latin, Classical Languages, and Classical Studies. The first term is devoted to various fields of Classics (e.g., religion, philosophy, law, social history, literary history), while in the second term students write a long research paper and then present their findings to the group. (staff)

Courses for which a knowledge of Greek is not required are listed under Classical Studies, page 95.

Haverford College offers the following courses in Greek:

Classics 001. Elementary Greek

Classics 101a. Introduction to Greek Prose

Classics 101b. Introduction to Greek Poetry

Classics 251a, b. Advanced Greek

GROWTH AND STRUCTURE OF CITIES

Professors:

Barbara Miller Lane, Ph.D., *Acting Director, Major Adviser, Andrew W. Mellon Professor in the Humanities, and Professor of History*
Gary W. McDonogh, Ph.D., *Professor and Director (on leave, 1996-97)*

Senior Lecturer:

Daniela Holt Voith, M. Arch.

Lecturers:

Jeffrey Cohen, Ph.D.
Sharon Ann Holt, Ph.D.

Affiliated Faculty:

Charles M. Brand, Ph.D., *Professor of History*
David Cast, Ph.D., *Professor of History of Art*
Philip L. Kilbride, Ph.D., *Professor of Anthropology*
Harriet Newburger, Ph.D., *Associate Professor of Economics*
Michael Nylan, Ph.D., *Associate Professor of East Asian Studies and History and Political Science*
Marc Howard Ross, Ph.D., *William Rand Kenan, Jr. Professor of Political Science*
Robert E. Washington, Ph.D., *Professor of Sociology*
James C. Wright, Ph.D., *Professor of Classical and Near Eastern Archaeology and Dean of the Graduate School of Arts and Sciences*

This interdisciplinary major challenges the student to understand the relationship of urban spatial organization and the built environment to politics, economics, cultures and societies. Core introductory classes present analytic approaches which explore the changing forms of the city over time as well as appreciate the variety of ways through which men and women have recreated urban life across cultures. With these foundations, students pursue their interests through classes in planning, architecture, urban social relations, urban history, and the environmental conditions of urban life. Advanced seminars bring together these discussions by focusing on specific cities and topics.

A minimum of fifteen courses (eleven courses in Cities and four allied courses) are required to complete the major. Four introductory courses (185, 190, 229, and 253 or 254) balance formal and socio-cultural approaches to urban form and the built environment, and introduce cross-cultural and historical comparison of urban development. These courses should be completed as early as possible in the freshman and sophomore years; at least two of them must be taken by the end of the first semester of the sophomore year. In addition to these introductory courses, each student selects six elective courses within the Cities program, of which at least two must be at the 300 level. In the senior year, a third advanced course is required. Most students join together in a research seminar, City 398 or 399. Occasionally, however, after consultation with the major advisers, the student may elect another

300-level course, or a program for independent research.

Beyond these eleven required courses, each student must select a minimum of four additional courses in related departments, grouped in such a way as to support the student's principal interests. For example, students who plan a professional career in architecture must take two semesters of physics and two semesters of calculus. Fine arts courses, in addition, are strongly recommended. (These students must also choose their Cities electives with particular care so as to include two semesters of architectural design and a minimum of two semesters of architectural history.) Students whose main interests focus on environmental issues must choose at least four semesters of related science courses as well as appropriate electives which develop policy and design concerns within the environment. Those who wish to focus on policy and/or planning issues must take microeconomics, statistics, and at least two further courses in anthropology, economics, political science or sociology. Students whose primary interests lie in architectural history or in the history of urban form are expected to take at least two courses in archaeology or history of art, and at least two in history. Both the Cities program electives and the four or more related courses outside the program must be chosen in close consultation with the major advisers, in order to create a strongly coherent sequence and focus. Note that those Cities courses that are cross-listed with other departments or originate in them can be counted only once in the course selection, although they may be either allied or elective courses.

The Cities program promotes student volunteer activities and student internships in architectural firms, offices of urban affairs, and regional planning commissions. Students wishing to take advantage of these opportunities should consult with the adviser before the beginning of the semester.

Programs for study abroad or off-campus programs are permitted within the limits of the Bryn Mawr and Haverford rules and practices. Students interested in spending all or part of their junior year away must consult with the major advisers and appropriate deans early in their sophomore year.

Occasionally students have entered a joint Three-Two Program in City and Regional Planning in conjunction with the University of Pennsylvania. Students interested in this program should meet with the major advisers early in their sophomore year.

Requirements for the minor in the Cities program are at least two out of the four required courses and four Cities electives, of which two must be at the 300 level. Senior Seminar is not mandatory in fulfilling the Cities minor.

Students should note that many courses in the program are given on an alternate year basis. Many carry prerequisites in economics, history, art history and the natural sciences. Hence, careful planning and frequent consultations with the major adviser are particularly important.

185. Urban Culture and Society The techniques of the social sciences as tools for studying historical and contemporary cities. Topics include political-economic organization, conflict and social differentiation

(class, ethnicity, and gender) and cultural production and representation. Both qualitative and quantitative methods are explored. (staff, Division I)

190. The Form of the City: Urban Form from Antiquity to the Present

The city as a three-dimensional artifact. A variety of factors—geography, economic and population structure, politics, planning, and aesthetics—are considered as determinants of urban form. (Lane, Division III; cross listed as History 190)

226. Introduction to Architectural Design

An introduction to the principles of architectural and urban design. Prerequisites: some history of art or history of architecture and permission of the instructor. (Voith, Division III)

227. Topics in the History of Modern Planning

A survey of the evolution of modern planning theory, followed by case study analysis of a series of planned cities, with emphasis on planning outside of the United States. (staff, Division I) *Not offered in 1996-97.*

228. Problems in Architectural Design

A continuation of City 226 at a more advanced level. Prerequisites: City 226 or other comparable design work and permission of instructor. (Voith, Division III)

229. Comparative Urbanism

An examination of approaches to urban development which focuses on intensive study and systematic comparison of individual cities through an original research paper. Themes and cities vary from year to year, although a variety of cultural areas are examined in each offering. (staff, Division I)

232. Latin American Urban Development

A theoretical and empirical analysis in an historical setting of the factors which have led to urban development in Latin America, with emphasis on the relationship between political and social change and economic growth. (staff, Division I; cross listed as Economics 232) *Not offered in 1996-97.*

246. Women's Narratives on Modern Migrancy, Exile, and Diaspora

(Seyhan, Division III; cross listed as Anthropology 246 and Comparative Literature 245)

250. Growth and Spatial Organization of American Cities

Overview of the changes, problems and possibilities of American Cities. Various analytical models and theoretical approaches are covered. Topics may include American urban history, comparisons among cities, population and housing, neighborhoods and divisions and urban design and the built environment. (staff) *Not offered in 1996-97.*

253. Survey of Western Architecture

The major traditions in Western architecture illustrated through detailed analysis of selected examples from classical antiquity to the present. The evolution of architectural design and building technology, and the larger intellectual, aesthetic, and social context in which this evolution occurred, are considered. Suggested prerequisites: History of Art 101, 102. (Lane, Cast, Division III; cross listed as History and History of Art 253)

254. History of Modern Architecture A survey of the development of modern architecture since the eighteenth century, with principal emphasis on the period since 1890. Prerequisite: City 253 or permission of instructor. (Lane, Division III; cross listed as History and History of Art 254) *Not offered in 1996-97.*

255. Survey of American Architecture An examination of forms, figures, contexts, and imaginations in the construction of the American built environment from colonial times to the present. Materials in and from Philadelphia figure as major resources. (Cohen, Division III; cross listed as History and History of Art 255)

335. Elite and Popular Cultures An examination of urban culture as a ground for conflict, domination and resistance through both theoretical and applied analysis of production, texts, readings and social action within a political economic framework. Examples are drawn from film and performance, mass journalism, religion, food, music and related domains within a range of world cities. (staff) *Not offered in 1996-97.*

342. Sex, Gender, and Sexuality in the City An examination of the city as a social, cultural, and physical space in which sex, gender, and difference have taken on varied and even conflictive meanings. Specific topics vary from year to year. (Holt)

360. Topics in Urban Culture and Society Advanced theoretical perspectives blend with contemporary and historical cases to explore specific problems in social scientific analysis of the city, such as space and time, race and class, elite and popular culture, or the construction of social and cultural distance in suburbs and downtowns. Topics vary. (staff)

365. Techniques of the City Critical reflections on the technologies and methods of the urban planning enterprise, including the investigations which shape our vision of the city. Topics include construction and reproduction of social models, urban infrastructure, modes of representation, and patterns of control. (staff) *Not offered in 1996-97.*

377. Topics in the History of Modern Architecture Selected aspects of the history of modern architecture and planning, with a focus on a major city or region. (Lane) *Not offered in 1996-97.*

398, 399. Senior Seminar An intensive research seminar. (Lane, staff)

Related courses in Anthropology:

211. African American Culture and Community (Washington, Kilbride, Division I; cross listed as Sociology 211) *Not offered in 1996-97.*

257. African Ethnology: Urban Problems (Kilbride, Division I) *Not offered in 1996-97.*

309. The Origins of Civilization and the State (Ellis, Davis; cross listed as Classical and Near Eastern Archaeology 309) *Not offered in 1996-97.*

Related courses in Classical and Near Eastern Archaeology:

223. Ancient Near Eastern Archaeology and Cities (Ellis; cross listed as Growth and Structure of Cities 223)

Growth and Structure of Cities

- 305. **Ancient Athens: Monuments and Art** (Miller-Collett) *Not offered in 1996-97.*
- 315. **Cities and Sanctuaries**
- 324. **Roman Architecture** (Scott; cross listed as History of Art 324) *Not offered in 1996-97.*

Related courses in Classical Studies:

- 150. **Outlaws, Scapegoats, and Sinners in Fifth Century Athens**

Related courses in Comparative Literature:

- 245. **Women's Narratives on Modern Migrancy, Exile, and Disapora**

Related courses in East Asian Studies and History:

- 274. **The Chinese Village** (Nylan, Division I; cross listed as East Asian Studies and Political Science 274)
- 275. **Asian Megacities** (Nylan, Division I; cross listed as East Asian Studies 275) *Not offered in 1996-97.*
- 312. **Medieval Cities: Islamic, Byzantine, and Western** (Brand) *Not offered in 1996-97.*
- 353. **East Asian Notions of Time and Space: Garden, House, and City** (staff; cross listed as East Asian Studies 353) *Not offered in 1996-97.*
- 375. **Asian Megacities** See History 275, above. (Nylan) *Not offered in 1996-97.*

Related courses in Economics:

- 136. **Working with Economic Data** (Ross) *Not offered in 1996-97.*
- 204. **Economics of Local Government Programs**
- 208. **Labor Economics** at Haverford. (Schaffer, Division I)
- 213. **Taming the Modern Corporation** (Ross) *Not offered in 1996-97.*
- 214. **Public Finance** (staff, Division I)
- 215a. **Urban Economics** at Haverford. (Dixon, Division I)
- 221. **United States Economic History** (Du Boff, Division I) *Not offered in 1996-97.*
- 234. **Environmental Economics** *Not offered in 1996-97.*
- 314. **Economics of Poverty and Discrimination** (Newburger)

Related courses in English:

- 283. **The Urban Novel** (Bernstein, Division III; cross listed as Comparative Literature 283) *Not offered in 1996-97.*

Related courses in French:

- 295. **La ville de Paris au XVIIe et au XVIIIe siècle** (Lafarge) *Not offered in 1996-97.*

Related courses in Geology:

- 103. **Introduction to Earth System Science and the Environment** (Johnsson, Division IIL)

Related courses in History of Art:

- 212. **Medieval Architecture** (Kinney, Division III)
- 323. **Topics in Renaissance Art** (Cast)
- 355. **Topics in the History of London** (Cast; cross listed as History 355) *Not offered in 1996-97.*

Related courses in Political Science:

222. Introduction to Environmental Issues (Hager, Division I)

316. Ethnic Group Politics (Ross)

Related courses in Sociology:

212. Sociology of Poverty (Porter, Division I)

218. Modernization *Not offered in 1996-97.*

231. Urban Sociology (Washington, Division I) *Not offered in 1996-97.*

330. Comparative Economic Sociology: Advanced and Third

World Societies (Osirim)

A number of courses at Haverford and Swarthmore fulfill electives in the Cities program. A list is available from the major advisers. Courses at the University of Pennsylvania may be sometimes substituted for certain Cities electives; these should be examined in conjunction with the major advisers.

HISTORY

Professors:

Charles M. Brand, Ph.D., *Interim Chairman*

Jane Caplan, D. Phil., *Marjorie Walter Goodhart Professor* (on leave, 1996-97)

Barbara Miller Lane, Ph.D., *Andrew W. Mellon Professor in the Humanities*

Alain Silvera, Ph.D., *Chairman* (on leave, 1996-97)

James Tanis, Th.D., *Constance A. Jones Director of the Bryn Mawr College Libraries*

Associate Professor of East Asian Studies and History and Political Science:

Michael Nylan, Ph.D.

Assistant Professors:

Madhavi Kale, Ph.D., *on the Helen Taft Manning Fund and Major Adviser (juniors)*

Sharon Ullman, Ph.D., *Major Adviser (seniors)*

Visiting Assistant Professors:

Barbara Cooper, Ph.D.

Kathryn S. Patterson, Ph.D.

Lecturer:

Suzanne Spain, Ph.D., *Associate Provost and Lecturer in History of Art*

Affiliated Faculty:

T. Cory Brennan, Ph.D., *Assistant Professor of Greek and Latin*

Richard S. Ellis, Ph.D., *Professor of Classical and Near Eastern Archaeology*

Russell T. Scott, Ph.D., *Doreen C. Spitzer Professor of Latin and Classical Studies*

History

The history major enables students to acquire historical perspective and a familiarity with historical method, giving them a lasting appreciation for the discipline of history. Courses stress the development of ideas, cultures, and institutions, not merely the accumulation of data about particular events. Students study some topics and methods intensively to learn how to use and evaluate primary sources. Instructors assign extensive reading to familiarize students with various kinds of historical writing. Students are expected to participate in class discussions and, in most courses, critical or narrative essays are required.

Students seeking to major in history have a choice between two tracks: either (A) the Comparative History track, which encourages study across a number of different cultural and geographical fields, or (B) the Interdisciplinary History track, which allows the student to choose a topic that can be studied both in history and in other appropriate disciplines. Students must elect one of these tracks, in consultation with their major adviser, at the time of declaring their major.

Ten courses are required for all majors. These must include the core courses specified for each track (see below); the methodology seminar (History 299), or an equivalent approved course; a one-semester supervised senior thesis of 25-30 pages, based on primary source research; and at least two courses at the 300 level or above, in addition to the senior thesis. No more than two courses at the 100 level may be counted towards the major. Students with scores of 5 on their Advanced Placement examinations, or equivalent International Baccalaureate or A-Level scores, may be exempted from two elective courses, though no exemptions are permitted from required core courses. Prospective majors are strongly recommended to take either History 111/112: Western Civilization, or History 114/115: The Historical Imagination: An Introduction to Global History, in their freshman or sophomore year.

Requirements for the tracks are as follow. For track A, Comparative History: a minimum of four history courses, to include at least one course at the 200 level in each of the following three areas: the United States, Europe, non-Western history; and one 300-level course in one of these areas. For track B, Interdisciplinary History: a cluster of four history courses with a topical or thematic focus which is interdisciplinary in character; for example, a region such as Latin America or the Middle East, a social group such as women or labor, a field such as intellectual history or urban history, a period such as medieval Europe or the modern world. Majors electing this track are required to design a major plan, in consultation with their adviser, which also includes approved courses on their focus from at least one other department.

Majors with GPAs of at least 2.7 (general) and 3.5 (history) at the end of the first semester of their senior year, who achieve a grade of at least 3.7 on their senior thesis, will be eligible for honors.

Students wishing to minor in history must complete six units. There are no track or other distribution requirements for the minor.

The Departments of History at Bryn Mawr and Haverford Colleges have fully coordinated their course offerings. History 111, 112 and History 114, 115 are offered jointly by members of both departments; several intermediate courses are given at one college or the other in alternate years. All courses are open equally to students of both schools. Both departments encourage students to avail themselves of the breadth of offerings this cooperation affords. Swarthmore College and University of Pennsylvania courses in history are acceptable toward the major and minor.

111, 112. Western Civilization A survey of Western European civilization from the fall of Rome to the present, including both institutional and intellectual currents in the Western tradition. Discussion sections and lectures deal with both first-hand materials and secondary historical accounts. (staff, Division III)

114, 115. The Historical Imagination: An Introduction to Global History An introduction to the craft of history — the ways historians think and write about the past. The first semester focuses on the changing relations among the different parts of the world as seen through the rubric of cultural encounters; semester II samples approaches to the history of work and power, popular culture, family, nationalism and cultural identity, and the use of the past as a guide to the future. Assignments include reading and writing about a wide variety of primary and secondary historical texts. (Patterson, Division III)

186. East Asian Family and Society (Nylan; cross listed as East Asian Studies 186)

190. The Form of the City: Urban Form from Antiquity to the Present (staff, Division III; cross listed as Growth and Structure of Cities 190)

201, 202. American History, 1600 to the Present Covering United States history from Columbus to the present, this course is designed to coax a satisfying sense of our national life out of the multiple experiences of the people— all the people— who built this land. (Ullman, Division I) *Not offered in 1996-97.*

204. Medieval European Culture Western European development in the twelfth and thirteenth centuries. Topics include economic, institutional, and intellectual developments in the major kingdoms of the West and the history of the Latin Church. (Brand, Division III) *Not offered in 1996-97.*

205. Ancient Greece (Brennan, Division III; cross listed as Classical Studies 205)

206. Society, Medicine, and Law in Ancient Greece (Brennan, Division III; cross listed as Classical Studies 206) *Not offered in 1996-97.*

207. Roman and Hellenistic History (Scott, Division III; cross listed as Classical Studies 207)

208. The Roman Empire (Scott, Division III; cross listed as Classical Studies 208) *Not offered in 1996-97.*

210. The Mediterranean Before Islam: History and Culture The transformation of ancient culture (art, institutions, thought, popular practices) into Byzantine culture from the fourth to the seventh centuries. Topics include the retention and alteration of classical motifs, ideas and institutions under the impact of such forces as Christianity, civil strife and external pressure to show how the Byzantine and medieval emerged from the Roman precursor. (Brand, Spain, Division III) *Not offered in 1996-97.*

215, 216. The Middle East A survey of the Arab world and Turkey from the rise of Islam to the Arab-Israeli wars. First semester topics include the legacy of Islam, the rise and decline of the Umayyad and Abbasid Caliphates, and the development of Muslim society and institutions under the Ottoman Empire. The second semester concentrates on the impact of the West and the growth of Arab nationalism. (staff, Division III) *Not offered in 1996-97.*

220. Early Chinese Belief: The Five Classics of Confucianism (Nylan, Division III; cross listed as Philosophy 220) *Not offered in 1996-97.*

225, 226. Europe Since 1789 A survey of the critical events, ideas, personalities, and political, economic, social, and technological developments of the nineteenth and twentieth centuries. The multiple meanings and ramifications of the concept of "The West" for Europe and for the rest of the world are explored, as well as Europe's "suicide" in the first half of this century and its "rebirth" in the second half. (Patterson, Division I)

227. American Attractions: Leisure, Technology, and National Identity A construction of a cultural history of the forms and social roles of visual spectacles in America from the end of the Civil War to the present and an introduction to a range of theoretical approaches to cultural analysis. (Ullman, White, Division III; cross listed as English 227)

233. Taoism: The Religion and the Philosophy (Nylan, Division III; cross listed as East Asian Studies and Philosophy 233) *Not offered in 1996-97.*

236. Introduction to African History An introduction to the history of Africa from "prehistorical" times to the modern era. Great states and the many decentralized societies of Africa are explored. African arts, society, and economics in historical context are also studied. Students learn about sources and methods for reconstructing African history. Students who want to continue further may take History 237 in the second semester, but either course may be taken independent of the other. (Cooper, Division I) *Not offered in 1996-97.*

237. Themes in Modern African History An exploration of key issues in the history of colonial and postcolonial Africa including changing trade and production patterns, labor migration, new therapeutic and educational forms, the rise of nationalism, and problems of the postcolonial state. (Cooper, Division I)

241. American Society Between the Wars A study of the social and cultural history of the crisis years from World War I to World War II. (Ullman, Division III)

242. American Politics and Society, 1945 to the Present A history of America in the postwar age, focusing on the impact of the Cold War and foreign affairs on American domestic life. (Ullman, Division III)

246. Medieval Women A study of the role of women in selected societies of medieval Europe. A consideration of late Roman, barbarian,

and early medieval women; an extended analysis of the literary perception and historical activities of women in the twelfth century; and some consideration of women's achievements in the thirteenth century. Prerequisite: French 101, or History 111, or equivalent. (Armstrong, Brand, Division III; cross listed as French 246)

247, 248. Germany, 1815 to the Present Introduction to the history of modern Germany with emphasis on social and political themes, including nationalism, liberalism, industrialization, women and feminism, labor movements, National Socialism, partition and postwar Germany, East and West. (Caplan, Division III) *Not offered in 1996-97.*

252. English Architecture: 1530-1830 (Cast, Division III; cross listed as Growth and Structure of Cities and History of Art 252) *Not offered in 1996-97.*

253. Survey of Western Architecture (Lane, Cast, Division III; cross listed as Growth and Structure of Cities and History of Art 253)

254. History of Modern Architecture (Lane, Division III; cross listed as Growth and Structure of Cities and History of Art 254) *Not offered in 1996-97.*

255. Survey of American Architecture (Cohen, Division III; cross listed as Growth and Structure of Cities and History of Art 255)

257. British Empire I The first semester explores the development and "invention" of the British Empire from the expansion of English influence and authority in Scotland, Wales, and Ireland, to the establishment of British rule in North America, the Caribbean, and India. Both metropolitan and colonial contributions to changing articulations of the British Empire are considered. (Kale) *Not offered in 1996-97.*

258. British Empire II: Imagining Indias (Kale, Division III) *Not offered in 1996-97.*

263. Britain and Empire: The Victorian Years (Patterson, Division III) *Not offered in 1996-97.*

264. Indian Diaspora: 1800-Present An exploration of the contested terrains of identity, authenticity, and cultural hybridity, focusing on migration from India to various parts of the world during the nineteenth and twentieth centuries. The significance of migration overseas for anti-colonial struggles in India and elsewhere in the British Empire and for contested, often conflicting, notions of India and nationhood during and after colonial rule are also considered. (Kale)

272. Early China: Material, Social, and Philosophical Cultures (Nylan, Division I; cross listed as East Asian Studies and Political Science 272) *Not offered in 1996-97.*

273. Historians, Visionaries, and Statesmen in China (Nylan, Division III) *Not offered in 1996-97.*

274. The Chinese Village (Nylan, Division I; cross listed as East Asian Studies, Growth and Structure of Cities, and Political Science 274)

275. Asian Megacities (Nylan; Division I; cross listed as East Asian Studies and Growth and Structure of Cities 275) *Not offered in 1996-97.*

276. Vietnam, China and the U.S. (Nylan, Division I; cross listed as East Asian Studies and Political Science 276)

291. La Civilisation française A survey of French culture and society from the Revolution to de Gaulle's Republic. Conducted in French; serves as the second half of the introductory course for French track II majors. (staff, Division III; cross listed as French 291)

292. Women in Britain (Since 1750) (Kale, Division III)

293. Myth and Ritual in Traditional China (Nylan, Division III; cross listed as East Asian Studies 293) *Not offered in 1996-97.*

299. Exploring History A one-semester intensive introduction to the methods and interpretation of history. Exercises in a variety of fields accompany lectures and readings drawn from a range of historical approaches. (Kale, staff, Division III)

303, 304. Topics in American History *Not offered in 1996-97.*

305. Livy and the Conquest of the Mediterranean (Scott; cross listed as Latin 305) *Not offered in 1996-97.*

312. Medieval Cities: Islamic, Byzantine, and Western Introduction to the comparative study of the economy, society, politics, and culture of towns in the Islamic, Byzantine, and Western European worlds from the seventh to the thirteenth centuries. (Brand; cross listed as Growth and Structure of Cities 312) *Not offered in 1996-97.*

319. Topics in Modern European History Topic for semester I: Heroes: The Changing Face of Virtue in Modern Western Society. An eclectic survey of the rise and fall of heroes in popular culture. Topic for semester II: Losing Peace: The League of Nations and the World, 1919-1939. An examination of why the League failed and what, if anything, can be learned from its dashed hopes. (Patterson)

320. The Rise of the Dutch Republic Politics and religion, the division between North and South, and the rise of the Northern Netherlands as an independent republic; with attention to commerce, art, and culture. (Tanis) *Not offered in 1996-97.*

321. The Golden Age of the Netherlands The cultural and intellectual life of the Netherlands in the seventeenth century, emphasizing the philosophical and theological thought of the period, against a background of general economic and political considerations. Brief attention to the interplay of the artistic and literary contributions of the age. (Tanis) *Not offered in 1996-97.*

323. Dutch-American Relations: 1609-1809 (Tanis) *Not offered in 1996-97.*

324. Topics in Reformation History: The Northern Reformation (Tanis)

325. Topics in American Social History: The History of Sexuality (Ullman)

326. Etudes avancées de civilisation (staff, Division III; cross listed as French 326)

330. France Since 1870 A study of the French national experience from the Paris commune to the student revolt of 1968, with particular emphasis on institutional and intellectual developments under the Republic. (Silvera) *Not offered in 1996-97.*

338. Topics in African History (Cooper)

340. Religious Forces in Colonial America A study of the interaction of diverse religious forces, in order to relate both ecclesiastical and theological problems to the broader culture and political contexts of the time. (Tanis) *Not offered in 1996-97.*

349. Topics in Comparative History (Kale)

353. East Asian Notions of Time and Space: Garden, House, and City (Nylan; cross listed as East Asian Studies and Growth and Structure of Cities 353) *Not offered in 1996-97.*

356. Topics in Early Modern Europe Topic for 1996-97: Emblems, Images, and Historical Records. (Tanis)

357. Topics in British Imperial History Topic for 1996-97: Slavery and Emancipation in the British Caribbean, North America, and the United States. (Patterson)

368, 369. Topics in Medieval History: Norman Conquest (Brand)

370, 371. The Great Powers and the Near East The diplomatic and geopolitical aspects of the Eastern Question and the Great Game in Asia from Napoleon's invasion of Egypt to the 1956 Suez crisis, including the broader issues of Western cultural penetration in the Islamic heartlands. (Silvera) *Not offered in 1996-97.*

375. Asian Megacities. Advanced work in problems of urbanization. See History 275, above. (Nylan) *Not offered in 1996-97.*

377. Topics in the History of Modern Architecture (staff; cross listed as Growth and Structure of Cities and History of Art 377) *Not offered in 1996-97.*

391. Topics in European Women's and Gender History (Caplan) *Not offered in 1996-97.*

397. History of History Review of some of the principal historians from Antiquity to the present. (Brand)

History of Art

398. Senior Thesis (Ullman)

403. Supervised Work Optional independent study, which requires permission of the instructor and the major adviser.

Haverford College offers the following courses in history:

111. Introduction to Western Civilization

114. Introduction to Global History

202. American History

219a. Economic and Social History of the High Middle Ages

228b. Early Modern Europe

235b. Colonial North America

240b. History and Principles of Quakerism

244. History of Russia

255. American Intellectual History

261. The Emergence of Modern China and Japan

340b. Topics in American History: History of the Family

343a. Topics in American Intellectual History: Constitutional Law

354b. Topics in Early Modern Europe

359b. Topics in Medieval Social History: Social and Economic

Development from the Thirteenth to the Seventeenth Century

361a. Seminar on Historical Evidence

399b. Senior Departmental Seminar

HISTORY OF ART

Professors:

David Cast, Ph.D., *Chairman*

Dale Kinney, Ph.D. (on leave, 1996-97)

Barbara Miller Lane, Ph.D., *Andrew W. Mellon Professor in the Humanities*

Steven Z. Levine, Ph.D., *Leslie Clark Professor in the Humanities*

Gridley McKim-Smith, Ph.D., *Major Adviser* (on leave, Semester I, 1996-97)

Associate Professor:

Christiane Hertel, Ph.D., *Major Adviser* (Semester I, 1996-97)

Assistant Professor:

Lisa Saltzman, Ph.D.

Lecturer:

Suzanne Spain, Ph.D., *Associate Provost*

The curriculum in history of art is focused on methods of interpretation and the construction of an historical context for works of art. Special subject concentrations include the history of architecture, European painting and sculpture, and western art historiography. Majors are encouraged to study abroad for a semester, and to supplement courses

taken in this department with courses in art history offered at Swarthmore and the University of Pennsylvania.

The major requires ten units, approved by the major adviser, in the following distribution: one or two 100-level courses, four or five 200-level courses, two 300-level courses, senior conference (398-399). Courses are distributed over the following chronological divisions: antiquity, middle ages, renaissance, baroque, modern (including American), and contemporary. With approval of the major adviser, units in fine arts, film studies, or another subject to which visual representation is central may be substituted for one or more of the 200-level courses listed below; similarly units of art history taken abroad or at another institution in the U.S. may be substituted, upon approval.

All seniors must pass (with a minimum grade of 2.0) a comprehensive examination given at the end of the fall semester. A senior paper, based on independent research and using scholarly methods of historical and/or critical interpretation, must be submitted at the end of the spring semester. Seniors whose major average at the beginning of the spring semester is 3.7 or higher will be invited to write an honors thesis instead of the senior paper.

A minor in history of art requires six units: one or two 100-level courses and four or five others selected in consultation with the major adviser.

103-108. Critical Approaches to Visual Representation These small seminars (limited enrollment of 20 per class) introduce the fundamental skills and critical vocabulary of art history in the context of thematic categories of artistic expression. All seminars follow the same schedule of writing assignments and examinations, and are geared to students with no or minimal background in history of art.

103. Icons and Idols. A study of potent imagery in Judaeo-Christian culture from late antiquity to modern times, with consideration of the Greco-Roman background and the Islamic alternative. (Kinney, Division III) *Not offered in 1996-97.*

104. The Classical Tradition. An investigation of the historical and philosophical ideas of the classical, with particular attention to the Italian renaissance and the continuance of its formulations throughout the westernized world. (Cast, Division III)

105. Poetry and Politics in Landscape Art. An introduction to the representation and perception of nature in different visual media, with attention to such issues as: nature and utopia, nature and violence, natural freedom, the femininity of nature. (Hertel, Division III)

106. Realisms from Caravaggio to Virtual Reality. A study of perceptions and definitions of reality and of the relation of the verisimilar to power, discourse, and gender, with emphasis on controversies of the sixteenth and seventeenth centuries. (McKim-Smith, Division III). *Not offered in 1996-97.*

107. Self and Other in the Arts of France, 1500-2000. A study of artists' self-representations in the context of the philosophy and psychology of their time, with particular attention to issues of political patronage, gender and class, power, and desire. (Levine, Division III)

108. Women, Feminism, and History of Art. An investigation of the history of art since the Renaissance organized around the practice of women artists, the representation of women in art, and the visual economy of the gaze. (Saltzman, Division III)

210. Medieval Art An overview of artistic production in Europe and the near east from the end of antiquity to the fourteenth century, focused on the characteristic art forms of Italy and Byzantium, Spain, the British Isles, France, and early Islam. Special attention to problems of interpretation, recent developments in art historical scholarship, and the survival of medieval objects in the modern world. (Kinney, Division III) *Not offered in 1996-97.*

212. Medieval Architecture A survey of medieval building types, including churches, mosques, synagogues, palaces, castles, and government structures, from the fourth through the fourteenth centuries in Europe, the British Isles, and the Near East. Special attention to regional differences and interrelations, the relation of design to use, the respective roles of builders and patrons. (staff, Division III; cross listed as Growth and Structure of Cities 212)

230. Renaissance Art A survey of painting in Florence and Rome in the fifteenth and sixteenth centuries (Giotto, Masaccio, Botticelli, Leonardo, Michelangelo, Raphael, Pontormo, Parmigianino, Titian, El Greco), with particular attention to contemporary intellectual, social, and religious developments. (Cast, Division III) *Not offered in 1996-97.*

237. Northern Renaissance An introduction to painting, graphic arts, and sculpture in Germany in the first half of the sixteenth century, with emphasis on the influence of the Protestant Reformation on the visual arts. Artists studied include Altdorfer, Cranach, Dürer, Grünewald, Holbein, and Riemenschneider. (Hertel, Division III) *Not offered in 1996-97.*

240. Italian, Flemish, and French Art of the Seventeenth Century Changes in the artists' social status and praxis characterize the production of Caravaggio, Artemisia Gentileschi, Bernini, Rubens, and Van Dyck. Optical innovations and theoretical experiments in the work of these artists and others, like Poussin and the Carracci, also invite fresh critical perspectives. At the same time, the problem of social conventions and patronage networks that continue to marginalize women artists demands analysis. Special attention is paid to the physical dimension of the works of art, and contact with original paintings and sculptures in area museums is required. (McKim-Smith, Division III) *Not offered in 1996-97.*

241. Art of the Spanish-speaking World A study of painting and sculpture in Spain from 1492 to the early nineteenth century, with emphasis on such artists as El Greco, Velázquez, Zurbarán, Goya, and the polychrome sculptors. As relevant, commentary is made on Latin America and the Spanish world's complex heritage, with its contacts with Islam, northern Europe, and pre-Columbian cultures. Continuities and disjunctions within these diverse traditions as they evolve both in Spain and the Americas are noted, and issues of canon formation and national identity are raised. (McKim-Smith, Division III)

245. Dutch Art of the Seventeenth Century A survey of painting in Holland with emphasis on such issues as Calvinism, colonialism, the "scientific revolution," popular culture, nationalism. Attention is given to various approaches to the study of Dutch art. Artists studied include

Claesz, Heda, Hals, Leyster, Post, Rembrandt, Ruysdael, ter Borch, Vermeer, de Witte. (Hertel, Division III)

250. Nineteenth-Century Painting in France Close attention is selectively given to the work of David, Ingres, Géricault, Delacroix, Courbet, Manet, Monet, Degas, and Cézanne. Extensive readings in art criticism are required. (Levine, Division III)

251. Twentieth-Century Art Close attention is selectively given to the work of Picasso, Matisse, Duchamp, Dali, Pollock, and Johns. Extensive readings in art criticism are required. (Levine, Division III) *Not offered in 1996-97.*

252. English Architecture: 1530-1830 A history of Renaissance architecture as seen and re-interpreted in England from the rise of a national identification to the Industrial Revolution and the first expeditions to the colonies. (Cast, Division III; cross listed as Growth and Structure of Cities and History 252) *Not offered in 1996-97.*

253. Survey of Western Architecture The major traditions in Western architecture are illustrated through detailed analysis of selected examples from classical antiquity to the present. The course deals with the evolution of architectural design and building technology, as well as with the larger intellectual, aesthetic, and social context in which this evolution occurred. (Cast, Lane, Division III; cross listed as Growth and Structure of Cities and History 253)

254. History of Modern Architecture A survey of the development of modern architecture since the eighteenth century, with principal emphasis on the period since 1870. (Lane, Division III; cross listed as Growth and Structure of Cities and History 254) *Not offered in 1996-97.*

255. Survey of American Architecture (Cohen, Division III; cross listed as Growth and Structure of Cities and History of Art 255)

260. Modern Art and Abstraction An inquiry into the history of the visual culture of European and American modernism through an exploration of art, history, art criticism, and art theory. Against the dominant and paradigmatic narrative and theory of modernism, the course introduces and uses materials aimed at their critique. (Saltzman, Division III)

261. Postmodernism and Visual Culture An examination of the emergence of postmodernism as a visual and theoretical practice. Emphasizing the American context, the course traces at once developments within art practice and the implications of critical theory for the study, theory, and practice of visual representation. (Saltzman, Division III) *Not offered in 1996-97.*

The following courses may also be offered to fulfill the 200-level requirements of the major:

Anthropology 206a. Anthropology of Art Art as a Western institution. Art and anti-art in the 20th century. History and sociology of collecting

"primitive" art. African art in cultural context. (MacGaffey, Division I; at Haverford College)

Archaeology 205. Greek Sculpture The development of Greek sculpture to the Hellenistic period. (Donohue, Division III) *Not offered in 1996-97.*

Archaeology 206. Hellenistic and Roman Sculpture From the Hellenistic period to the end of the Roman empire. (Donohue, Division III) *Not offered in 1996-97.*

Philosophy 222. Aesthetics An examination of aesthetic experience, the ontology of art objects, the nature of artistic interpretation, and the concept of creativity. (Krausz, Division III) *Not offered in 1996-97.*

Note: 300-level courses are seminars offering discussion of theoretical or historical texts and/or the opportunity for original research.

300. Methodological and Critical Approaches to Art History A survey of traditional and contemporary approaches to the history of art. A critical analysis of a problem in art historical methodology is required as a term paper. (staff) *Not offered in 1996-97.*

303. Art and Technology A consideration of the technological examination of paintings. While studying the appropriate aspects of technology (such as the infrared vidicon, the radiograph and autoradiograph, analysis of pigment samples and pigment cross-sections), the course also encourages the student to approach the laboratory in a spirit of creative scrutiny. Raw data neither ask nor answer questions, and it remains the province of the student to shape meaningful questions and answers. The course both acquaints the student with the technology involved in examining paintings and encourages the student to find fresh applications for available technology in answering art historical questions. (McKim-Smith) *Not offered in 1996-97.*

310. Medieval Art in American Collections A research seminar on objects in regional collections (Philadelphia, New York, Baltimore). Attention to questions posed by the physical qualities of works of art: materials, production techniques, stylistic signatures; to issues of museum acquisition and display; and to iconography and historical context. (Kinney) *Not offered in 1996-97.*

311. Topics in Medieval Art A research seminar on such subjects as: imagery of the Virgin Mary, Apocalypse imagery, pagan imagery in the middle ages. (Kinney) *Not offered in 1996-97.*

323. Topics in Renaissance Art Selected subjects in Italian art from painting, sculpture, and architecture between the years 1400 and 1600. (Cast; cross listed as Growth and Structure of Cities 323)

324. Roman Architecture The architecture of the Republic and the early Roman Empire. (Scott; cross listed as Classical and Near Eastern Archaeology and Growth and Structure of Cities 324) *Not offered in 1996-97.*

340. Topics in Baroque Art Selected topics in the arts of Europe of the sixteenth through eighteenth centuries. (McKim-Smith) *Not offered in 1996-97.*

345. Topics in Northern Baroque Art Topics include monographic and thematic approaches to the study of Dutch art within the parameters of History of Art 245. Examples: Rembrandt and Rubens, genre painting and the question of genre, Dutch art in American collections. (Hertel) *Not offered in 1996-97.*

348. Topics in German Art Topics vary and include German Romanticism, art of the Reformation period, German Modernism. (Hertel) *Not offered in 1996-97.*

350. Topics in Modern Art Poststructuralism, Postmodernism, and American Art: An examination of the impact of critical theory on the study of visual representation and actual practice in the arts. (Saltzman)

354. Topics in Art Criticism Individual topics in art-historical methodology, such as art and psychoanalysis, feminism, post-structuralism, or semiotics are treated. (Levine)

355. Topics in the History of London Selected topics of social, literary, and architectural concern in the history of London, emphasizing London since the eighteenth century. (Cast; cross listed as Growth and Structure of Cities and History 355) *Not offered in 1996-97.*

360. Feminism, Feminist Theory and Art History An examination of the meaning of gender and feminism for the practice, criticism, and theorizing of modern and postmodern visual culture. In conjunction with an analysis of visual practice by women and men, feminists and non-feminists, the course explores Anglo-American feminism, theories of spectatorship, and French feminist theory. (Saltzman) *Not offered in 1996-97.*

377. Topics in the History of Modern Architecture (Lane; cross listed as Growth and Structure of Cities and History 377) *Not offered in 1996-97.*

The following course may also be offered to fulfill the 300-level requirements for the major:

Philosophy 323. Culture and Interpretation (Krausz; cross listed as Comparative Literature 323)

398. Senior Conference A comprehensive, critical-review of the history of western art in preparation for the comprehensive examination. Special attention to the narrative assumptions of the standard history and its critique from the vantage points of feminism, social history, psychoanalysis, etc. Required of all majors. (Levine, Hertel)

399. Senior Conference A seminar for the discussion of senior research papers and such theoretical and historical concerns as may be appropriate to them. Interim oral reports. Required of all majors; culminates in the senior paper. (Cast, Saltzman)

Italian

403. Supervised Work Advanced students may do independent research under the supervision of a faculty member whose special competence coincides with the area of the proposed research. Consent of the supervising faculty member and of the major adviser is required. (staff)

ITALIAN

Professors:

Nancy Dersofi, Ph.D.

Nicholas Patruno, Ph.D., *Chairman and Major Adviser*

At Haverford College

Instructor:

Ute Striker, M.A.

The aims of the major are to acquire a knowledge of Italian language and literature and an understanding of Italian culture. Major requirements in Italian are ten courses: Italian 101, 102, and eight additional units, at least two of which are to be chosen from the offerings on the 300 level, and no more than two from an allied field. All students must take a course on Dante, one on the Italian Renaissance, and one on twentieth century or modern Italian literature. Where courses in translation are offered, students may, with the approval of the department, make the proper substitution provided they read the texts in Italian, submit written work in Italian, and when the instructor finds it necessary, meet with the instructor for additional discussion in Italian.

Courses allied to the Italian major include, with departmental approval, all courses for major credit in ancient and modern languages and related courses in archaeology, art history, history, music, philosophy, and political science. Each student's program is planned in consultation with the department.

With departmental approval, students who begin their work in Italian at the 200 level will be exempted from Italian 101 and 102.

Italian majors are encouraged to study in Italy during the junior year in a program approved by the department. The Bryn Mawr/University of Pennsylvania summer program in Florence offers courses for major credit in Italian, or students may study in other approved summer programs in Italy or in the United States. Courses for major credit in Italian may also be taken at the University of Pennsylvania. Students on campus are encouraged to live in the Italian House and they are expected to make extensive use of the facilities offered by the Language Laboratory Center.

The requirements for honors in Italian are a grade point average of 3.7 in the major. A research paper may be written at the invitation of the department, either in Senior Conference or in a unit of supervised work.

Requirements for the minor in Italian are Italian 101, 102, and four additional units. With departmental approval, students who begin their work in Italian at the 200 level will be exempted from Italian 101 and 102. With courses in translation, the same conditions for majors in Italian apply.

001, 002. Elementary Italian A practical knowledge of the language is acquired by studying grammar, listening, speaking, writing, and reading. Students practice listening, speaking, and video-viewing in the Language Learning Center. Credit will not be given for Italian 001 without completion of Italian 002. Offered at both Bryn Mawr and Haverford Colleges. (Dersofi, Patruno, Striker [at Haverford])

101, 102. Intermediate Course in the Italian Language A review of grammar and readings from Italian authors with topics assigned for composition and discussion; conducted in Italian. (Dersofi, Patruno)

200. Advanced Conversation and Composition The purpose of this course is to increase fluency in Italian and to facilitate the transition to literature courses. The focus is on spoken Italian and on the appropriate use of idiomatic and everyday expressions. Students will be expected to do intensive and extensive language drills, orally and in the form of written compositions. Literary material will be used; conducted in Italian. (Patruno) *Not offered in 1996-97.*

201. Prose and Poetry of Contemporary Italy Designed especially for those who have just completed Italian 102, 200, or their equivalent, this course presents a study of the artistic and cultural developments of pre-Fascist, Fascist, and post-Fascist Italy seen through the works of poets such as Ungaretti, Montale, and Quasimodo, and through the narratives of Pirandello, Moravia, P. Levi, Silone, Vittorini, Pavese, Ginzburg, and others. (Patruno, Division III) *Not offered in 1996-97.*

203. Italian Theater Examination of selected plays from the Renaissance to the present. Readings include plays by Machiavelli, Ruzante, Goldoni, Alfieri, Giacosa, Verga, D'Annunzio, Pirandello, and Dario Fo. (Dersofi, Division III)

205. The Short Story of Modern Italy Examination of the best of Italian short stories from post-unification to today's Italy. In addition to their artistic value, these works will be viewed within the context of related historical and political events. Among the authors to be read are Verga, D'Annunzio, Pirandello, Moravia, Calvino, Buzzati, and Ginzburg. (Patruno, Division III)

207. Dante in Translation A historical appraisal and critical appreciation of the *Vita Nuova* and the *Divine Comedy* with a focus on the *Inferno*. (Patruno, Division III)

209. Humanism and the Renaissance In translation. A study of Italian humanism in the fifteenth century and of some major Renaissance writers: Castiglione, Machiavelli, Ariosto, Ruzante, and Gaspara Stampa. Topics include the argument for liberal studies, courtliness, images of power, epic romance, the rebirth of theater, and women and the lyric voice. (Dersofi, Division III) *Not offered in 1996-97.*

210. Women and Opera in Translation Exploration of ways in which opera represents, reflects, and influences images of women. Both the status of female artists on the operatic stage and the representation of women in a group of about ten operas will be considered. The libretti, in Italian, French, and German, may be read in translation, although

Italian

students are expected to read the Italian texts in the original language for major credit. (Dersofi, Division III; cross listed as Comparative Literature 210)

211. Primo Levi, the Holocaust, and its Aftermath A consideration, through analysis and appreciation of his major works, of how the horrific experience of the Holocaust awakened in Primo Levi a growing awareness of his Jewish heritage and led him to become one of the dominant voices of that tragic historical event, as well as one of the most original new literary figures of post-World War II Italy. Always in relation to Levi and his works, attention will also be given to other Italian Jewish writers whose works are also connected with the Holocaust. (Patrino, Division III; cross listed as Comparative Literature and Hebrew and Judaic Studies 211) *Not offered in 1996-97.*

301. Dante A study of the *Divina Commedia*, with central focus on *Inferno*. Prerequisite: two years of Italian or the equivalent. (Dersofi, Patrino, Division III) *Not offered in 1996-97.*

303. Petrarca and Boccaccio A study of Petrarca's *Canzoniere* and Boccaccio's *Decameron*. Prerequisite: two years of Italian or the equivalent. (Dersofi, Division III) *Not offered in 1996-97.*

304. Italy before and after 1492 Focuses on fifteenth-century Italian literature, including works by Lorenzo De'Medici, Poliziano, Pulci, and Boiardo in the period before 1492. Prerequisite: two years of Italian, or the equivalent. (Dersofi, Division III) *Not offered in 1996-97.*

399. Senior Conference Under the direction of the instructor, each student prepares a paper on an author or a theme which the student has chosen. This course is open only to senior Italian majors. (Dersofi, Patrino)

LATIN

Professors:

Julia H. Gaisser, Ph.D., *Eugenia Chase Guild Professor in the Humanities*

Russell T. Scott, Ph.D., *Doreen C. Spitzer Professor of Latin and Classical Studies, Chairman, and Major Adviser*

Assistant Professor of Greek and Latin:

T. Corey Brennan, Ph.D.

The major in Latin is designed to acquaint the student with Roman literature and culture, which are examined both in their classical context and as influences on the medieval and modern world.

Requirements for the major are ten courses: Latin 101, 102, two literature courses at the 200 level, two literature courses at the 300 level, History 207 or 208, Senior Conference, and two courses to be selected from the following: Latin 205; Classical Archaeology or Greek at the 100 level or above; French, Spanish, or Italian at the 200 level or above. Courses taken at the Intercollegiate Center for Classical Studies in Rome (see page 67) are accepted as part of the major. Latin 205 is required for those who plan to teach. By the end of the senior year, majors will be required to have completed a senior essay and a sight translation from Latin to English. Essays of conspicuous merit and originality may be awarded honors.

Requirements for the minor are normally six courses, including one at the 300 level. For non-majors, two literature courses at the 200 level must be taken as a prerequisite for admission to a 300-level course. Students who place into 200-level courses in their freshman year may be eligible to participate in the A.B./M.A. program. Those interested should consult the department as soon as possible.

001, 002. Elementary Latin Basic grammar, composition, and Latin readings, including classical prose and poetry. This is a year-long course; both semesters are required for credit. (Scott, Gaisser)

003. Intermediate Latin Intensive review of grammar, reading in classical prose and poetry. For students who have had the equivalent of two years of high school Latin or are not adequately prepared to take Latin 101. This course meets three times a week with a required fourth hour to be arranged. (Gaisser)

101. Latin Literature Selections from Catullus and Cicero. Prerequisite: Latin 001-002 and 003 or placement by the department. (Roberts, Division III)

102. Latin Literature: Livy and Horace Prerequisite: Latin 101 or placement by the department. (Gaisser, Division III)

104. The City of Rome in Latin Literature from Augustus to Charlemagne (Scott, Division III) *Not offered in 1996-97.*

Latin

- 201. Advanced Latin Literature: Roman Comedy** (Gaisser, Division III)
- 202. Advanced Latin Literature: The Silver Age** Readings from major authors of the first and second centuries A.D. (Scott, Division III)
- 203. Medieval Latin Literature** Selected works of Latin prose and poetry from the late Roman Empire through the Carolingian Renaissance. (Scott, Division III) *Not offered in 1996-97.*
- 205. Latin Style** A study of Latin prose style and Latin metrics based on readings and exercises in composition. Offered to students wishing to fulfill the requirements for teacher certification in Latin or to fulfill one of the requirements in the major. (Scott, Division III)
- 301. Vergil's Aeneid** (Gaisser, Division III) *Not offered in 1996-97.*
- 302. Tacitus** (Scott, Division III) *Not offered in 1996-97.*
- 303. Lucretius** Study of the *De Rerum Natura* and its philosophic background. (Gaisser, Division III) *Not offered in 1996-97.*
- 304. Cicero and Caesar** (Scott, Division III)
- 305. Livy and the Conquest of the Mediterranean** (Scott, Division III) *Not offered in 1996-97.*
- 310. Catullus and the Elegists** (staff, Division III) *Not offered in 1996-97.*
- 312. Roman Satire** (Scott, Division III) *Not offered in 1996-97.*
- 312b. Apuleius** (Roberts, Division III)
- 398, 399. Senior Conference** Topics in Latin literature. (staff)

Courses for which a knowledge of Latin is not required are listed under Classical Studies, p. 95.

Haverford College offers the following courses in Latin:

- Classics 002. Elementary Latin**
Classics 102a, b. Introduction to Latin Literature
Classics 252a, b. Advanced Latin

MATHEMATICS

Professors:

Frederic Cunningham, Jr., Ph.D., *Katharine E. McBride Professor
Emeritus of Mathematics*

Rhonda J. Hughes, Ph.D., *Helen Herrmann Professor of Mathematics*

Paul Melvin, Ph.D. (on leave, 1996-97)

Associate Professors:

Victor Donnay, Ph.D., *Chairman*

Helen Grundman, Ph.D., *on the Rosalyn R. Schwartz Lectureship*

Assistant Professors:

Danielle Carr, Ph.D., *on the Clare Boothe Luce Professorship*

Lisa Traynor, Ph.D. (on leave, 1996-97)

Instructors:

Mary Louise Cookson, M.A., *Senior Program Coordinator*

Peter G. Kasius, M.A.

The mathematics curriculum is designed to expose students to a wide spectrum of ideas in modern mathematics, to train students in the art of logical reasoning and clear expression, and to provide students with an appreciation of the beauty of the subject and of its vast applicability. The major requires six core courses, and four electives at or above the 200 level.

Core Requirements:

Multivariable Calculus (201)
Linear Algebra (203; H215)
Real Analysis (301-302; H317-318)
Abstract Algebra (303; H333)
Senior Conference (398)

With the exception of Senior Conference, equivalent courses at Haverford or elsewhere may be substituted for Bryn Mawr courses. In consultation with a major adviser, a student may also petition the department to accept courses in fields outside of mathematics as electives if these courses have serious mathematical content appropriate to the student's program.

Students entering with a 4 or 5 on the Calculus AB advanced placement test will be given credit for Mathematics 101, and should enroll in Mathematics 102 as their first mathematics course. Students entering with a 4 or 5 on the Calculus BC advanced placement test will be given credit for Mathematics 101 and 102, and should enroll in Mathematics 201 as their first mathematics course.

Students considering the possibility of graduate study in mathematics or related fields are urged to go well beyond the minimum requirements of the major. In such cases, a suitable program of study should be designed with the advice of a major adviser.

Math majors are encouraged to complete their core requirements other than Senior Conference by the end of their junior year. Senior Conference must be taken during the senior year. Below are some

Mathematics

general guidelines for the selection of electives for students who wish to pursue a program focused on either pure or applied mathematics:

Pure Mathematics Focus

Strongly recommended:

- Transition to Higher Mathematics (204)
- Abstract Algebra, semester II (304; H334)
- Topology (312; H335)
- Complex Variables (322)

Select additional courses from:

- Differential Equations (210; H204)
- Partial Differential Equations (311)
- Topology, semester II (313; H336)
- Complex Variables, semester II (323)
- Chaotic Dynamical Systems (351)
- Number Theory (290, 390)

Applied Mathematics Focus

Select remaining courses from:

- Applied Statistics (H203)
- Transition to Higher Mathematics (204)
- Probability (205; H218)
- Differential Equations (210; H204)
- Discrete Mathematics (231)
- Numerical Analysis (308; H320)
- Partial Differential Equations (311)
- Complex Variables (322)
- Mathematical Biology (329)
- Chaotic Dynamical Systems (351)

For students who wish to pursue a more computational major, a course in Discrete Mathematics (231) is highly recommended. In addition, certain computer science courses will be accepted as electives, including Analysis of Algorithms (H340), Theory of Computation (H345) and Advanced Topics in Discrete Mathematics and Computer Science (H394). These courses may count toward a computer science minor or major as well [see the computer science listings at the end of this catalogue].

Students with interdisciplinary interests, for example in mathematical physics, may design an independent major in consultation with the faculty. For students entering with advanced placement credits it is possible to earn both the A.B. and M.A. degrees in an integrated program in four or five years. See also the section on Curricular Opportunities earlier in this catalogue for a description of the five-year joint program with the University of Pennsylvania for earning both an A.B. at Bryn Mawr and an engineering degree at Penn.

The degree with honors in mathematics is awarded by the department to students who have achieved excellence in the work of the major and in a program of independent work undertaken in the senior year, including an honors thesis, which may be an expository paper or some original research.

Requirements for the minor in mathematics are five courses in mathematics at the 200 level or higher, of which at least two are 300 level or higher.

Any course in mathematics at the 100 level or above satisfies the College requirement of work in mathematics or Quantitative Skills. Moreover, students who choose to fulfill the additional work requirement in mathematics, rather than language, must take a semester of calculus and any other semester course in mathematics at the 100 level or above. Consult the curriculum section of this catalogue for further information.

001. Fundamentals of Mathematics Basic techniques of algebra, analytic geometry, graphing, and trigonometry, for students who need to improve these skills before entering other courses which use them, both inside and outside mathematics. Placement in this course is by advice of the department and consent of instructor. (staff)

101, 102. Calculus with Analytic Geometry Differentiation and integration of algebraic and elementary transcendental functions, with the necessary elements of analytic geometry and trigonometry; the fundamental theorem, its role in theory and applications, methods of integration, applications of the definite integral, infinite series. Prerequisite: Math readiness or permission of instructor. (staff, Division II, Quantitative Skills)

103. Matrices and Linear Programming Matrices, linear equations, and inequalities; linear programming problems, with applications; the simplex algorithm; duality and two-person matrix games. Elementary computer programming is included so that non-trivial problems can be solved numerically. Other uses of matrices as time permits, such as Markov chains, or incidence matrices of graphs. Prerequisite: Math readiness or permission of instructor. (staff, Division II, Quantitative Skills) *Not offered in 1996-97.*

104. Elements of Probability and Statistics Basic concepts and applications of probability theory and statistics including: finite sample spaces, permutations and combinations, random variables, expected value, variance, conditional probability, hypothesis testing, linear regression, and correlation. The computer is used; prior knowledge of a computer language is not required. This course may not be taken after any other statistics course. Prerequisite: Math readiness or permission of instructor. (staff, Division II, Quantitative Skills)

107. Experiments in Dynamical Systems Computational experiments in the behavior of functions under iteration, using computer graphics. Discussion of examples of dynamical systems as models of natural phenomena. Stable orbits and convergence to equilibrium; periodicity; fractal attractors; bifurcations and chaos. Students should have some literacy in basic mathematical notations such as functions, variables, and exponents. (staff, Division III, Quantitative Skills)

201. Multivariable Calculus Vectors and geometry in two and three dimensions, partial derivatives, extremal problems, double and triple integrals, line and surface integrals, Green's and Stokes' Theorems. Prerequisite: Mathematics 102 or permission of instructor. (staff, Division II, Quantitative Skills)

Mathematics

203. Linear Algebra Matrices and systems of linear equations, vector spaces and linear transformations, determinants, eigenvalues and eigenvectors, inner product spaces, and quadratic forms. Prerequisite: Mathematics 102 or permission of instructor. Meets Division II requirement. (staff, Division II, Quantitative Skills)

205. Theory of Probability with Applications Random variables, probability distributions on \mathbb{R}^n , limit theorems, random processes. Prerequisite: Mathematics 201. (staff, Division II, Quantitative Skills) *Not offered in 1996-97.*

206. Transition to Higher Mathematics An introduction to higher mathematics with a focus on proof writing. Topics include active reading of mathematics, constructing appropriate examples, problem solving, logical reasoning, and communication of mathematics through proofs. Students will develop skills while exploring key concepts from algebra, analysis, topology, and other advanced fields. Corequisite: Mathematics 203; not open to students who have had a 300-level math course. (Grundman, Division II, Quantitative Skills)

210. Differential Equations with Applications Ordinary differential equations, including general first order equations, linear equations of higher order, series solutions, Laplace transforms, systems of equations and numerical methods. Introduction to Fourier series and partial differential equations. Applications to physics, biology and economics. Prerequisite: Mathematics 201. (Carr, Division II, Quantitative Skills)

231. Discrete Mathematics An introduction to several topics in discrete mathematics with strong applications to computer science. Topics include set theory, functions and relations, propositional logic, proof techniques, recursion, counting techniques, difference equations, graphs and trees. (staff, Division II, Quantitative Skills; cross listed as Computer Science 231) *Not offered in 1996-97.*

290. Elementary Number Theory Properties of the integers, divisibility, primality and factorization, congruences, Chinese remainder theorem, multiplicative functions, quadratic residues and quadratic reciprocity, continued fractions, and applications to computer science and cryptography. Prerequisite: Mathematics 102.

301, 302. Introduction to Real Analysis The real number system, elements of set theory and topology, continuous functions, uniform convergence, the Riemann integral, power series, Fourier series, and other limit processes. Prerequisite: Mathematics 201. (Carr)

303, 304. Abstract Algebra Groups, rings, fields, and their morphisms. Prerequisite: Mathematics 203. (Cunningham)

308. Applied Mathematics Topics vary from year to year. (staff) *Not offered in 1996-97.*

311. Partial Differential Equations. Heat and wave equations on bounded and unbounded domains, Laplace's equation, Fourier series and the Fourier transform, qualitative behavior of solutions, computational

methods. Applications to the physical and life sciences. Prerequisite: Mathematics 301 or permission of instructor. (Hughes)

312, 313. Topology General topology (topological spaces, continuity, compactness, connectedness, quotient spaces); the fundamental group and covering spaces. Introduction to geometric topology (classification of surfaces, manifolds) and algebraic topology (homotopy theory, homology and cohomology theory, duality on manifolds). Prerequisite: Mathematics 201 and 203 or permission of the instructor. (staff) *Not offered in 1996-97.*

322. Functions of Complex Variables Analytic functions, Cauchy's theorem, Laurent series, calculus of residues, conformal mappings, Moebius transformations, infinite products, entire functions, Riemann mapping theorem, Picard's theorem. Prerequisite: Mathematics 301 or permission of instructor. (Donnay)

329. Elements of Mathematical Biology Mathematical biology is the study of medicine and the life sciences, using mathematical models to help predict and interpret what we observe. The first part of this course introduces the mathematics of populations (demographics), genetics, epidemics and biogeography. The second part deals with models from neuro, cardiovascular, pulmonary and renal physiology. This course is intended to reinforce the students' mathematics education while enabling them to develop and apply modeling skills early in their academic careers. Students should be familiar with one-variable calculus and matrix theory. Prerequisite: Mathematics 203 or permission of instructor. (Carr; cross listed as Biology 329)

351. Chaotic Dynamical Systems Limits, Cantor set, periodic points of a map, chaotic maps, maps on a circle and torus, bifurcation theory, Mandelbrot set, fractals, and Julia sets. Prerequisite: Mathematics 201 and 203. (Donnay) *Not offered in 1996-97.*

390. Number Theory Algebraic number fields and rings of integers, quadratic and cyclotomic fields, norm and trace, ideal theory, factorization and prime decomposition, lattices and the geometry of algebraic integers, class numbers and ideal class groups, computational methods, Dirichlet's unit theorem. Prerequisite: Mathematics 303 or permission of instructor. (Grundman) *Not offered in 1996-97.*

398, 399. Senior Conference A seminar for seniors majoring in mathematics. Topics vary from year to year. (Cunningham, Donnay)

403. Supervised Work (staff)

405. Supervised Teaching (staff)

Haverford College offers the following courses in mathematics:

103. Introduction to Probability and Statistics

113. Calculus I

114. Calculus II

120. Accelerated Calculus

121. Calculus III

- 203. Statistical Methods and their Applications
- 204. Differential Equations
- 215. Linear Algebra
- 216. Advanced Calculus
- 220. Complex Analysis *Not offered in 1996-97.*
- 231. Discrete Mathematics
- 237. Introduction to Mathematical Logic
- 317/318. Analysis I-II
- 333/334. Algebra I-II
- 335/336. Topology I-II
- 396. Advanced Topics: Algebra and Geometry
- 399. Senior Seminar

MUSIC

At Haverford College

Professor:

John H. Davison, Ph.D., *Chairman*

Associate Professors:

Curt Cacioppo, Ph.D.

Richard Freedman, Ph.D.

Lecturers:

Thomas Lloyd, D.M.A., *Director of the Bryn Mawr-Haverford Choral Program*

Heidi Jacob, M.M., *Director of the Bryn Mawr-Haverford Orchestral Program*

The Music curriculum is designed to deepen understanding of musical form and expression through development of skills in composition and performance joined with analysis of musical works and their place in various cultures. A major in music provides a foundation for further study leading to a career in music.

The theory program stresses proficiency in aural, keyboard and vocal skills, and written harmony and counterpoint. Composition following important historical models and experimentation with contemporary styles are emphasized.

The musicology program, which emphasizes European, North American, and Asian traditions, considers music in the rich context of its social, religious, and aesthetic surroundings.

The performance program offers opportunities to participate in the Haverford-Bryn Mawr Chamber Singers, Chorale, Women's Ensemble, Symphony, and ensembles formed within the context of Haverford's Chamber Music Seminar. Music 214c, f, i, 215c, f, i, 216c, f, i and Private Study (117f, 118i-417a, 418b) are academically credited courses.

The requirements for the major are:

- 1) Theory-composition: 203a, 204b, 303a;
- 2) Musicology: 230a, 231b;
- 3) Three electives in music chosen from: 207b, 228a, 250a, 304b, and 403b;

4) Performance: participation in a department-sponsored performance group is required for at least one year. Instrumental or vocal private study for one year. Continuing ensemble participation and instrumental or vocal private study is strongly urged.

5) Senior project: a demonstration of focused achievement in one or more of the three principal areas of the musical curriculum (theory-composition, musicology, performance). Project topics must receive music faculty approval no later than September 30 of the student's senior year. During the fall of the senior year, she will meet regularly with a member of the music faculty who has agreed to serve as adviser for the project. Together they will work out a clear schedule for the timely completion of research, composition, or rehearsal, according to the needs of the project. During the spring term, the student will enroll in Music 480, the grade for which will reflect a combination of the quality of the final project (recital, composition, or research) and the consistent effort brought to bear in its production. In the spring term (probably during March or April), the student will offer a public presentation on some aspect of her project. The quality of this presentation, too, will figure in the grade for the senior project.

6) Majors are expected to attend the majority of department-sponsored concerts, lectures, and colloquia.

Substitutions for Haverford College courses in fulfillment of the major in music must be approved in advance by the Music Department.

The requirements for the minor are:

1) Theory-composition: 203a, 204b;

2) Musicology: two courses chosen from 230a, 231b, and 250a;

3) One additional course chosen from 207b, 228a, 250a, 304b, or 403b;

4) Performance: one unit of work (i.e., one year at a half credit per semester). This credit can be earned through participation in one of the department-sponsored groups or through the music lesson program.

Departmental Honors or High Honors will be awarded on the basis of superior work in music courses combined with exceptional accomplishment in the senior project.

THEORY AND COMPOSITION

110a. Musicianship and Literature Preliminary intensive exercise in ear-training, sight-singing, and aural harmony, and investigation of principal works of the baroque and classical periods through guided listening and analysis. (Cacioppo, Division III)

203a. Principles of Tonal Harmony I A study of the harmonic vocabulary and compositional techniques of Bach, Haydn, Mozart, Beethoven, Schubert, and others. Emphasis on composing melodies, constructing phrases, and harmonizing in four parts. Composition of minuet and trio or other homophonic pieces as final project. Work includes keyboard harmony and analysis. Prerequisite: Music 110 or permission of instructor. (Cacioppo, Division III)

204b. Principles of Tonal Harmony II Extension of Music 203. Choral harmonization, construction of more complex phrases; composition of original theme and variations as final project. Work includes keyboard harmony and score study. Prerequisite: Music 203 or permission of instructor. (Cacioppo, Division III)

303a. Advanced Tonal Harmony I Review of chorales, introduction to chromatic harmonization; composition in forms such as waltz, nocturne, intermezzo; exploration of accompaniment textures. Prerequisite: Music 204 or permission of instructor. (Cacioppo)

304b. Counterpoint A study of eighteenth century contrapuntal techniques and forms with emphasis on the works of J.S. Bach. Modal counterpoint; canon; composition of two-part contrapuntal dance (such as gavotte); invention; introduction to fugal writing. Analysis of works from supplemental listening list is required. Prerequisite: Music 303 or permission of instructor. (Davison)

403a. Seminar in 20th Century Theory and Practice Classic and contemporary 20th-century composers, works, and trends, with reference to theoretical and aesthetic writings and the broader cultural context. Prerequisite: Music 204 or permission of the instructor. (Cacioppo)

PERFORMANCE

107f, i. Introductory Piano For students with little or no keyboard experience. Basic reading skills and piano technique; scales, arpeggios, and compositions in small forms by Bach, Mozart, and others. Enrollment is limited to sixteen students. (Davison, Division III)

117f (Division III), 118i (Division III), 217f (Division III), 218i (Division III), 317f, 318i, 417a, 418b. Vocal or Instrumental Private Study To receive credit for private study, students must be participating in a departmentally approved ensemble (such as Chorale, Chamber Singers, Symphony, or Music 215 Seminar group) or assigned, related activity. All students in the private study program perform for a faculty jury at the end of the semester. Teachers submit written evaluations at the end of the semester's work; the 100 level is graded pass/fail. Grades, given at the 200-400 levels, are determined on the basis of all available material. Full credit is automatically given at the 400 level only; requests for full credit at the 100-300 level will be considered by the department. A maximum of two credits of private study may be applied toward graduation. All financial arrangements are the student's responsibility. Private study subsidies may be applied for at the beginning of each semester's study through the department. Prerequisites: departmental audition to determine level and departmental approval of proposed teacher. (staff)

207a. Topics in Piano A combination of private lessons and studio/master classes, musical analysis, research questions into performance practice and historical context, and critical examination of sound recorded sources; preparation of works of selected composer or style period for end of semester class recital. Topic for 1996-97: Keyboard Works of the Bach Family. For qualified pianists. Prerequisite: audition. (Cacioppo, Division III)

214 f.i. Seminar in Analysis and Performance of Choral Literature This seminar is available to students participating in the Haverford-Bryn Mawr Chamber Singers. The course researches the special musical

problems of literature rehearsed and performed during the semester. (Lloyd, Division III)

215 f, i. Ensemble and Accompanying Seminar Intensive rehearsal of works for small groups, with supplemental research and listening assigned. Performance required. Available to instrumentalists and vocalists who are concurrently studying privately or who have studied privately immediately prior to the start of the semester. Prerequisite: audition and permission of instructor. (staff, Division III)

216 f,i. Seminar in Analysis and Performance of Orchestral Literature For students participating in the Haverford-Bryn Mawr Symphony. Research into the special musical problems of literature rehearsed and performed during the semester. (staff, Division III)

MUSICOLOGY

111b. Introduction to Western Music A survey of the European musical tradition from the Middle Ages to modern times. Students hear music by Monteverdi, Bach, Mozart, Beethoven, Wagner, Stravinsky, and Glass, among many others, developing both listening skills and an awareness of how music relates to the culture that fosters it. In addition to listening and reading, students attend concerts and prepare written assignments. (staff, Division III)

130b. Beethoven in Context The centerpiece of the course is a major body of Beethoven's work, rotating in successive years between symphonies, piano sonatas, and string quartets. A short introduction to basic principles of Western classic notation and form leads to an examination of Beethoven's accomplishment, preceded by a study of works that led up to it, and followed by a look at later works by composers (such as Brahms) who were inspired by it. Questions of criticism and performance practice are addressed. Topic for 1996-97: The Sonatas and Symphonies (Davison, Division III)

149b. Native American Music and Belief The music of Native North Americans is explored in this course through listening, singing, and reading/analysis of ethnographic transcriptions. The role of music in ceremonial and social contexts is discussed, and crossovers with other musical idioms (jazz, folk, rock, concert) are examined. (Cacioppo, Division III)

227a. Jazz and the Politics of Culture A study of jazz and its social meanings. Starting with an overview of jazz styles and European idioms closely bound to jazz history, the course gives students a basic aural education in musical forms, the process of improvisation, and the fabric of musical performance. Our principal goal, however, is to discover how assumptions about order and disorder in music reflect deeply felt views about society and culture. Prerequisites: sophomore standing or higher; not open to students who have taken Music 126, which this course replaces. (Freedman, Division III) *Not offered in 1996-97.*

228a. Musical Voices of Asia A consideration of music and its place in Asian cultures—as a symbol of collective identity; as a vehicle for self-

Philosophy

expression; and as a definer of social and gender differences. Students examine the traditional musics of India, Indonesia, and Japan and their interaction with European music. In addition to extensive listening and reading, students prepare individual research projects. The class attends concerts and films in the Philadelphia area. Prerequisite: sophomore standing or higher. (Freedman, Division III) *Not offered in 1996-97.*

230a. History of Music I: The European Musical Heritage to 1750 An examination of music by Machaut, Josquin, Monteverdi, Handel, Bach, and many other composers of the twelfth through the eighteenth centuries. Classroom assignments consider the basic problems raised by the study of early music; questions of style and structure, ideas about performance practice, and issues of cultural history. In addition to extensive listening and reading assignments, students prepare individual research projects. The class attends early music concerts and workshops in the Philadelphia area. Prerequisites: Music 110 or Music 111. (staff, Division III)

231b. History of Music II: The European Musical Heritage from 1750 to 1920 An examination of the music of Mozart, Beethoven, Chopin, Schumann, Verdi, Wagner, Schoenberg, and Stravinsky, among many others. Classroom discussions focus on the style and organization of individual works, problems of performance practice, compositional method, and issues of biography and historical context. In addition to extensive listening and reading assignments, students prepare individual research projects. Prerequisites: Music 110 or Music 111. (staff, Division III)

250b. Words and Music: Tones, Words, and Images Topic for 1996-97: The Renaissance Text. Prerequisite: Any full-credit course in music, or permission of the instructor. (Freedman, Division III; cross listed as Comparative Literature 250a)

480a, f, b, i. Independent Study Prerequisite: permission of instructor. (staff)

PHILOSOPHY

Professors:

Rosemary Desjardins, Ph.D., *Katharine E. McBride Visiting Professor*

Robert J. Dostal, Ph.D., *Provost of the College* and Rufus M. Jones

Professor of Philosophy and Religion

Michael Krausz, Ph.D., *Milton C. Nahm Professor, Chairman and Major Adviser*

George E. Weaver, Jr., Ph.D.

Assistant Professor:

Christine Kogel, Ph.D.

Affiliated Faculty:

Deepak Kumar, Ph.D., *Assistant Professor of Computer Science*

Stephen G. Salkever, Ph.D., *Mary Katharine Woodworth Professor of Political Science*

Azade Seyhan, Ph.D., *Associate Professor of German and Comparative Literature*

The Department of Philosophy introduces students to some of the most compelling answers to questions of human existence and knowledge. It also grooms students for a variety of fields which require analysis, conceptual precision, argumentative skill, and clarity of thought and expression. These include the law, computer science, social services, business, health professions, administration, and the arts. As well, the major in philosophy prepares students for graduate-level study leading to careers in teaching and research in the discipline.

The curriculum focuses on three major areas: (1) the systematic areas of philosophy, such as logic, theory of knowledge, metaphysics, ethics, and aesthetics; (2) the history of philosophy through the study of key philosophers and philosophical periods; and (3) the philosophical explication of methods in such domains as art, religion, science, and history.

Students majoring in philosophy must take a minimum of ten semester courses. They must also take part in the monthly non-credit departmental seminars. The following five courses are required for the major: the two-semester historical introduction (Philosophy 101 and 201), Ethics (221), either Theory of Knowledge (211), or Metaphysics (212), or Logic (103), and Senior Conference (398). At least three other courses at the 300 level are required. Majors must take one historical course that concentrates on the work of a single philosopher or a period in philosophy.

Philosophy majors are encouraged to supplement their philosophical interests by taking advantage of courses offered in related areas, such as languages, literature, history, history of art, anthropology, psychology, sociology, political science, and mathematics.

Students may minor in philosophy by taking six courses in the discipline at any level. They must also take part in the monthly non-credit departmental seminars.

Honors will be awarded by the department based on the senior thesis and other work completed in the department. As well, the Milton C. Nahm Prize in Philosophy is a cash award presented to the graduating senior major whose senior thesis the department judges to be of outstanding caliber. This prize need not be granted every year.

The department is a member of the Greater Philadelphia Philosophy Consortium comprised of thirteen member institutions in the Delaware Valley. It sponsors the Conferences on the Philosophy of the Human Studies and an annual undergraduate student philosophy conference.

Students may take advantage of cross-registration arrangements with Haverford College, Swarthmore College, and the University of Pennsylvania. Courses at these institutions may satisfy Bryn Mawr requirements, but a student should check with the chairman of the department to make sure a specific course meets a requirement.

No introductory-level course carries a prerequisite. However, all courses on both the intermediate and advanced levels carry prerequisites. Unless stated otherwise in the course description, any introductory course satisfies the prerequisite for an intermediate-level course, and any intermediate course satisfies the prerequisite for an advanced-level course.

101. A Historical Introduction to Philosophy: Greek Philosophy The origins and development of Greek philosophy, including the pre-Socratics, Plato, and Aristotle. (Dostal, Desjardins, Division III)

102. Introduction to Problems of Philosophy: Foundations of Knowledge Contemporary formulations of certain philosophical problems are examined, such as the nature of knowledge, persons, freedom and determinism, the grounds of rationality, cognitive and moral relativism, and creativity in both science and art. (Krausz, Division III)

103. Introduction to Logic Training in reading and writing proof discourses (i.e., those segments of writing or speech which express deductive reasoning) to gain insight into the nature of logic, the relationship between logic and linguistics, and the place of logic in the theory of knowledge. (Weaver, Division III)

151. Western Political Philosophy: Ancient and Early Modern (Salkever, Division III; cross listed as Political Science 151)

201. A Historical Introduction to Philosophy: Modern Philosophy The development of philosophic thought from Descartes to Nietzsche. No prerequisite. (staff, Desjardins, Division III)

203. Formal Semantics A study of the adequacy of first order logic as a component of a theory of linguistic analysis. Grammatical, semantic, and proof theoretic inadequacies of first order logics are examined and various ways of enriching these logics to provide more adequate theories are developed, with special attention to various types of linguistic presuppositions, analyticity, selection restrictions, the question-answer relation, ambiguity, and paraphrase. Prerequisite: Philosophy 103. (Weaver, Division III) *Not offered in 1996-97.*

210. Philosophy of Social Science: Introduction to Cultural Analysis An examination of the relation between the philosophical theory of relativism and the methodological problems of cross-cultural investigation. Selected anthropological theories of culture are evaluated in terms of their methodological and philosophical assumptions with attention to questions of empathetic understanding, explanation, evidence, and rational assessment. (Krausz, Kilbride, Division I; cross listed as Anthropology 201)

211. Theory of Knowledge An examination of the relation between cultural relativism and cognitive relativism. Comparisons are made with absolutist and foundationalist strategies. Topics include the nature of truth, conceptual schemes, and argumentation. (Krausz, Division III) *Not offered in 1996-97.*

212. Metaphysics An examination of the issues that arise when we try to discern the fundamental nature of the world. What does it mean to say that something is real, objective, mind-independent, or true? How do we go about deciding whether the world includes values, God, mind, numbers? Is there a reason to regard science's description of the world as depicting the world as it *really* is? (Krausz, Division III)

214. Modal Logic A study of normal sentential modal logics. Topics include Kripke semantics, Makinson constructions, and back and forth arguments. Prerequisite: Philosophy 103. (Weaver, Division II, Quantitative Skills)

220. Early Chinese Belief: The Five Classics of Confucianism (Nylan, Division III; cross listed as History 220) *Not offered in 1996-97.*

221. Ethics An introduction to ethics by way of examination of moral theories (such as virtue ethics, utilitarianism, Kant's categorical imperative, relativism, and care ethics) and of practical issues (such as abortion, animal rights, and equity). The course also explores answers to some of the following questions: can we obtain knowledge of morally right action? Do we have duties to entities other than human beings? Is violating the right to life ever morally justified? How do we decide what actions are morally right in cases of conflicting principles? When is the state justified in interfering with the choices that individuals make? Is the phrasing of these questions in terms of the primacy of individual rights, privacy, and liberty itself in need of evaluation? (Koggel, Division III)

222. Aesthetics An examination of aesthetic experience, the ontology of art objects, the nature of artistic interpretation, and the concept of creativity. (Krausz, Division III; cross listed as Comparative Literature 222) *Not offered in 1996-97.*

231. Western Political Philosophy (Modern) (Salkever, Division III; cross listed as Political Science 231)

233. Taoism: The Religion and the Philosophy (Nylan, Division III; cross listed as East Asian Studies and History 233) *Not offered in 1996-97.*

236. Plato: Early and Middle Dialogues A close study of several Platonic dialogues chosen from among the following: *Apology*, *Crito*, *Euthyphro*, *Meno*, *Gorgias*, *Phaedo*, *Phaedrus*, *Symposium*. Emphasis on the character of Socrates, the nature of Socratic inquiry, and the relationship between such inquiry and political life. Some familiarity with the *Republic* is presupposed. (Desjardins, Division III; cross listed as Political Science 236) *Not offered in 1996-97.*

238. Science, Technology, and the Good Life A study of science, its relationship to the good life, and the relationship of technology to both science and the good life, in the ancient, modern, and contemporary periods. Primary readings from Aristotle, Galileo, and Husserl. Supplementary readings from the modern and contemporary period include Descartes, Hobbes, Newton, Boyle, Habermas, Arendt, Taylor, and MacIntyre. (Dostal, Division III; cross listed as Political Science 238)

242. Theory of Recursion An introduction to the theory of recursion understood as the study of "effective" language processing (i.e., as the study of those processes involving symbol manipulation which can be carried out in a purely mechanical or formal fashion). The central concepts of recursion (enumerability, decidability, computability, and solvability) are defined in terms of the notion of elementary formal

Philosophy

systems. Topics include abstract forms of the incompleteness and undecidability results of Church, Gödel, Tarski, and Rosser; recursive function theory; Turing-Post machines; diagonalization, Gödel sentences, and Gödel numbering. Prerequisite: Philosophy 103, Mathematics 101, or discrete mathematics. (Weaver, Division II, Quantitative Skills) *Not offered in 1996-97.*

293. The Play of Interpretation (Bernstein, Division III; cross listed as Comparative Literature and English 293) *Not offered in 1996-97.*

306. Origins of Political Philosophy: China and Greece (Nylan, Salkever; cross listed as East Asian Studies and Political Science 306)

310. Philosophy of Science An examination of positivistic science and its critics. Topics include the possibility and nature of scientific progress from relativistic perspectives. (Krausz) *Not offered in 1996-97.*

312. Philosophy of History An examination of representative analytic and speculative philosophies of history. Topics include the nature of historical explanation, the relativist/absolutist controversy, holism and individualism, and historical interpretation. (Krausz) *Not offered in 1996-97.*

316. Philosophy of Mathematics Epistemological problems, particularly in reference to mathematical realism, are examined and various solutions are discussed, with emphasis on "structuralist" solutions arising out of modern abstract algebra. Prerequisite: Philosophy 103 or 213. (Weaver) *Not offered in 1996-97.*

322. Equality Theory An examination of various conceptions of equality within the liberal tradition, beginning with selections from John Rawls' *A Theory of Justice*, and an exploration of some of the key issues concerning views of the self, social relations, and justice. The course also looks at critiques of Rawls and liberal theory in general by the communitarians Sandel, Taylor, MacIntyre, and Walzer, as well as recent revisions to liberalism by Kymlicka, Rawls, and Gutmann. Finally, the course explores some challenges to liberal equality theory in recent feminist discussions of the nature of the self, autonomy, social relations, and justice. (Koggel)

323. Culture and Interpretation A study of methodological and philosophical issues associated with interpreting alternative cultures, including whether ethnocentrism is inevitable, whether alternative cultures are found or imputed, whether interpretation is invariably circular or relativistic, and what counts as a good reason for one cultural interpretation over another. Prerequisite: a 200-level course in philosophy or anthropology or permission of instructor. (Krausz)

325. Philosophy of Music A consideration of the philosophical issues pertinent to the ontology of works of music, meaning and understanding of music, emotions and expressiveness in music, music and intentionality, scores in relation to performances, the idea of rightness of interpretation, music and morality, and music in relation to other arts and practices. Prerequisite: an introductory course in philosophy or music,

or permission of the instructor. (Krausz, Division III) *Not offered in 1996-97.*

327. Twentieth-century Political Philosophy (Salkever; cross listed as Political Science 327) *Not offered in 1996-97.*

330. Kant An examination of central themes of Kant's critical philosophy. (Desjardins) *Not offered in 1996-97.*

338. Phenomenology: Husserl and Heidegger A study of the two principal founders of the phenomenological movement of the twentieth century. (Dostal) *Not offered in 1996-97.*

341. Pragmatism An examination of how this fresh philosophical approach, expressed through work such as Charles Sanders Pierce's theory of meaning, William James' theory of truth, and John Dewey's version of pragmatism, not only helped shape contemporary American educational, legislative, and judicial institutions and practices, but also achieved a powerful impact beyond this country, especially in China and Japan. (Desjardins)

350. Being and Good in Plato and Aristotle An exploration of interpretations of being and the role of good in the thought of Plato and Aristotle. (Desjardins)

352. Feminism and Philosophy An investigation of the lessons feminism and philosophy offer one another. The course examines feminist critiques of traditional philosophical conceptions of morality, the self, reason, and objectivity; and it studies philosophical contributions to issues of concern for feminists, such as the nature of equality, justice, and oppression. Prerequisite: a background in philosophy or political theory is needed; consent of instructor is required. (Koggel)

372. Artificial Intelligence Survey of artificial intelligence, the study of how to program computers to behave in ways normally attributed to "intelligence" when observed in humans. Topics include: heuristic vs. algorithmic programming; cognitive simulation vs. machine intelligence; problem solving; inference; natural language understanding; scene analysis; learning; decision making. Topics are illustrated by programs from literature and programming projects in appropriate languages. (Kumar; cross listed with Computer Science 372)

399. Senior Conference Seniors write a thesis and meet regularly with other senior majors for discussion. (Desjardins)

The Department of Philosophy sponsors the following General Studies courses. These courses should be of interest to philosophy students as well as students in mathematics and computer science.

General Studies 213. Introduction to Mathematical Logic Equational logics and the equational theories of algebra are used as an introduction to mathematical logic. While the basics of the grammar and deductive systems of these logics are covered, the primary focus is their semantics or model theory. Particular attention is given to those ideas and results which anticipate developments in classical first order model theory.

Physics

Prerequisite: Philosophy 103 or Mathematics 101 and 102. (Weaver, Division II, Quantitative Skills)

General Studies 215. Introduction to Set Theory: Cardinals and Ordinals Study of the theory of cardinal and ordinal numbers in the context of Gödel-Bernays-von Neumann set theory. Topics include equivalents of the axiom of choice and basic results in infinite combinatorics.

Prerequisite: Philosophy 103 or Mathematics 101 and 102. (Weaver, Division II, Quantitative Skills)

General Studies 303. Advanced Mathematical Logic This course develops various advanced topics in the branch of mathematical logic called model theory. Topics include homogeneous models, universal models, saturated and special models, back and forth constructions, ultraproducts, the compactness and Lowenheim-Skolem theorems, submodel complete theories, model complete theories, and omega-categorical theories. Prerequisite: General Studies 213 or Haverford Mathematics 237. (Weaver) *Not offered in 1996-97.*

Haverford College offers the following courses in philosophy:

101. Historical Introduction to Philosophy

210a. Plato

221b. Early Modern Continental Philosophy: Descartes/Spinoza

225b. Nietzsche

232b. African-American Philosophy

242a. Buddhist Philosophy

255a. Epistemology

256a. Social and Political Philosophy

342b. Topics in Asian Philosophy: Zen Thought

354a. Topics in Metaphysics: Mind and World

399. Senior Seminar

460. Discussion Leaders

PHYSICS

Professors:

Neal B. Abraham, Ph.D., *Rachel C. Hale Professor in the Sciences and Mathematics*

Alfonso M. Albano, Ph.D., *Marion Reilly Professor and Chairman and Major Adviser*

Peter A. Beckmann, Ph.D.

Assistant Professor:

Elizabeth F. McCormack, Ph.D.

Laboratory Instructor:

Mary E. Scott, M.A.

The courses in physics emphasize the concepts and techniques that have led to our present state of understanding of the physical universe; they are designed to relate the individual parts of physics to the whole rather than to treat them as separate disciplines. In the advanced courses the student applies these concepts and techniques to increasingly independent studies of physical phenomena. Opportunities exist for interdisciplinary work, for participation by qualified majors in research with members of the faculty, and for training in instrument making, glass blowing, computer programming and interfacing, and electronics.

It is possible for a student who takes Physics 103, 104 and Mathematics 101, 102 in the sophomore year to major in physics. However, it is advisable for a freshman considering a physics major to take Physics 103, 104 and Mathematics 101, 102 in the freshman year. Entering students are strongly urged to take departmental placement exams in physics and mathematics if they have had reasonably strong courses in high school. Advanced placement and credit is given for a score of 4 or 5 on the AP tests. Alternatively, students may take the departmental advanced placement examinations just prior to, or during, the first week of classes.

It is strongly recommended that students considering graduate work in physics, materials science, engineering, or related fields supplement the major requirements with additional courses in physics, mathematics, and chemistry. In consultation with appropriate faculty members, students may design independent majors in, for instance, mathematical physics, geophysics, or chemical physics.

Beyond the four introductory physics and mathematics courses, nine additional courses are required for the major. Physics 201 (Haverford Physics 213), Physics 214 (Haverford Physics 214), and Mathematics 201 (Haverford Mathematics 121) are required. One of Mathematics 203 (Haverford Mathematics 215), or Mathematics 210 (Haverford Mathematics 204) is required. Students able to take two of these courses are advised to take both Mathematics 203 and 210. Students able to take only one of these courses are advised to take Mathematics 210. Usually, the other five physics courses will be any 300-level physics courses at Bryn Mawr or Haverford. However, any two courses from among Astronomy 204, 305, 320, 322, and any 300-level mathematics courses may be substituted for two of the five 300-level physics courses. If Physics 306 is used for the major, then only one 300-level mathematics course substitution is permitted. With permission of the department, some 200- and 300-level geology, physical chemistry, or inorganic chemistry courses may be substituted for one or two of the five physics courses, in some cases on a two-for-one basis. Without permission of the department, no more than two substitutions for the 300-level physics courses can be made.

Requirements for the minor beyond the introductory sequence are Mathematics 201, Physics 201, 214, one 300-level course and one other 200-level or 300-level course approved by the department or appropriate equivalent Haverford physics or astronomy courses.

The A.B. degree may be awarded with honors in physics. The award is based on the quality of original research done by the student and described in a senior thesis presented to the department and on the achievement of a minimum grade point average in physics of 3.4 and an overall grade point average of 3.0, both calculated at the end of the senior year.

Physics

The department has been very successful in preparing students for graduate school in physics, physical chemistry, materials science, and engineering. To be well-prepared for graduate school, students should take, as a minimum, Physics 201, 214, 302, 303, 306, 308, 309, 331 and Mathematics 201, 203, and 210. Students bound for graduate school are also advised to take additional mathematics courses and to engage in research with a member of the faculty. Preparation for graduate school is possible but very demanding for students who have completed only the introductory physics and mathematics sequences by the end of their sophomore year. In this case, one must take, at a minimum, Physics 201, 214, 308 or 309, 331 and Mathematics 201 in their junior year and Physics 302, 303, 308 or 309, and an additional 200-level mathematics course in the senior year.

101. Introductory Physics I An introductory course covering classical kinematics and dynamics, special relativity, heat, and kinetic theory. Although there is no calculus co- or prerequisite, calculus is introduced and used throughout the course. Emphasis is on problem solving and physical insight, the unification of physical laws, and the discoveries of the last two hundred years that have shaped current attitudes and theories in physics. Lecture three hours, laboratory three hours a week. Section I is for post-baccalaureate students, Section 2 is primarily for juniors and seniors either majoring in a natural science or preparing to meet premedical requirements. Sophomores may choose between 101/102 and 103/104 and are urged to seek advice from the Physics Department Introductory Courses Administrator. (Division III, Quantitative Skills)

102. Introductory Physics II Continuation of Physics 101. This course covers electromagnetism, electrical circuits, mechanical and electromagnetic waves, geometric and physical optics, and an introduction to contemporary physics: quantum mechanics, atomic and molecular physics, solid state physics, nuclear and particle physics, and astrophysics. Lecture three hours, laboratory three hours a week. Open to all sophomores, juniors, seniors, and postbaccalaureate students preparing to meet premedical requirements. Prerequisite: Physics 101. (Division III, Quantitative Skills)

103. Foundations of Physics I In introductory course that seeks to develop physical insight and problem-solving skills at a level that requires the calculus, as well as an appreciation for the broader conceptual structure of physics and its relationships with other fields of human endeavor. Emphasis on motion, dynamics, gravitation, thermodynamics, and statistical physics. Lecture three hours, laboratory three hours a week. Co-requisite: Mathematics 101. Open only to freshmen and sophomores. Sophomores may choose between 101/102 and 103/104 and are urged to seek advice from the Physics Department Introductory Courses Administrator. (Division III, Quantitative Skills)

104. Foundations of Physics II. Continuation of Physics 103. Emphasis on electricity, magnetism, electromagnetic waves, and optics. Lecture three hours, laboratory three hours a week. Open only to freshmen and sophomores. (Division III, Quantitative Skills)

107. Conceptual Physics An introduction to the fundamental forces of nature, elementary particles, conservation laws, and principles which underlie the modern understanding of physics and also guide the modern practice of physics. Cosmology, nuclear physics, relativity, mechanics, and electromagnetism are used as examples and illustrations. Special emphasis is placed on how the "laws of physics" are inferred and tested; how paradigms are developed; and how working principles are extrapolated to new areas of investigation. The systematic, as well as the serendipitous, nature of discoveries is illustrated using the work of major scientists. Short papers and investigative laboratories are among the various activities for learning and applying the methods of practicing physicists. No prerequisites. Lecture three hours, laboratory three hours a week. This is a terminal course. No second semester physics course follows. Open to all students who have not taken college-level physics. (Division III, Quantitative Skills)

201. Electromagnetism and Physical Optics Electrostatics; electric currents and magnetic fields; electromagnetic induction; Maxwell's equations, electromagnetic waves, and elements of physical optics including principles of diffraction, interference, and coherence. Scalar and vector fields and vector calculus are introduced and developed as needed. Lecture three hours, laboratory in electricity, electronics, and electronic devices three hours a week. Prerequisite: Physics 102 or 104. Corequisite: Mathematics 201 or Haverford equivalents. (Division III, Quantitative Skills)

214. Modern Physics and Quantum Mechanics Special relativity; experimental origins of quantum theory; Schrödinger's equation; one-dimensional problems; angular momentum; the hydrogen atom; spin and addition of angular momenta; elementary radiation theory; the periodic table. Lecture three hours, laboratory in modern physics and physical optics three hours a week. Prerequisites: Physics 201 or permission of instructor and a 200-level mathematics course. (Division III, Quantitative Skills)

302. Quantum Mechanics and Applications An introduction to the formal structure of quantum mechanics; measurement theory; spin angular momentum; the exclusion principle; perturbation theory. Selected applications to atomic, molecular, and nuclear physics; to solid state physics and elementary particles. Lecture and discussion, four hours a week. Prerequisite: Physics 214 (Haverford Physics 214). *Alternates between Bryn Mawr and Haverford, 1996-97 at Haverford.*

303. Statistical and Thermal Physics Statistical description of the states of classical and quantum systems; conditions for equilibrium; statistical basis of thermodynamic concepts and the Laws of Thermodynamics; microcanonical, canonical, and grand canonical ensembles and applications; Fermi-Dirac, Bose-Einstein, and Maxwell-Boltzmann statistics with applications to solid state physics, low temperature physics, atomic and molecular physics, and electromagnetic waves; classical thermodynamics with applications to gases. Lecture and discussion four hours a week. Prerequisites: a 200-level physics course and a 200-level mathematics course. *Alternates between Bryn Mawr and Haverford, 1996-97 at Bryn Mawr*

305. Advanced Electronics Survey of electronic principles and circuits useful to the experimental physicist. Topics include feedback and operational amplifiers with extensive applications, servo systems, noise and small signal detection, analog to digital conversion, microcomputer interfacing. Laboratory eight hours a week. Prerequisite: Physics 201 or Haverford Physics 213. *Alternates between Bryn Mawr and Haverford; 1996-97 at Haverford.*

306. Mathematical Methods in the Physical Sciences Infinite series; three-dimensional vector calculus; complex variables; coordinate transformations and tensors; Fourier series; Laplace and Fourier transforms; differential equations; special functions; boundary-value problems. Lecture and discussion four hours a week. Prerequisites: Mathematics 201 or Haverford Mathematics 121, Physics 201 (Haverford Physics 213); corequisites: Physics 214 (Haverford Physics 214) and a 200- or 300-level mathematics course.

308. Advanced Classical Mechanics Kinematics and dynamics of particles and macroscopic systems, including nonlinear dynamics, Configuration and phase space, normal mode analysis of oscillations, descriptions of the motions of rigid and elastic bodies. Mathematical methods are introduced as needed. Lecture and discussion four hours a week. Co- or prerequisite: a 300-level physics course or, with permission of instructor, advanced work in chemistry, astronomy, or mathematics. *Alternates between Bryn Mawr and Haverford; 1996-97 at Haverford.*

309. Advanced Electromagnetic Theory Electrostatics; dielectrics; electric currents; magnetism; magnetic materials; Maxwell's equations; electromagnetic waves; classical and relativistic electrodynamics; special topics such as superconductivity, plasma physics, and radiation. Mathematical methods are introduced as needed. Lecture and discussion four hours a week. Co- or prerequisite: a 300-level physics course or, with permission of instructor, advanced work in chemistry, astronomy, or mathematics. *Alternates between Bryn Mawr and Haverford; 1996-97 at Bryn Mawr.*

322. Solid State Physics Crystal structure and diffraction; the reciprocal lattice and Brillouin zones; crystal binding; lattice vibrations and normal modes; phonon dispersion, Einstein and Debye models for the specific heat; free electron model, the Fermi surface; electrons in periodic structures, the Bloch theorem; band structure; semiclassical electron dynamics; semiconductors; magnetic and optical properties of solids; superconductivity; defects in solids. Lecture and discussion four hours a week. Co- or prerequisite: Physics 303 or, with permission of instructor, advanced work in chemistry, astronomy, or mathematics. *Alternates between Bryn Mawr and Haverford; 1996-97 at Bryn Mawr.*

331. Advanced Modern Physics Laboratory Set-piece experiments as well as directed experimental projects to study selected phenomena in atomic, molecular, optical, nuclear, and solid state physics. These experiments and projects serve as an introduction to the contemporary instrumentation and the precision measurement techniques used in physics research laboratories. Laboratory eight hours a week. Corequisite: Physics 201, or prerequisite: Physics 214.

390. Supervised Work At the discretion of the department, juniors and seniors may supplement their work with supervised study of topics not covered in the regular course offerings. (staff)

403. Supervised Units of Research At the discretion of the department, juniors and seniors may supplement their work with research in one of the faculty research groups. At the discretion of the research supervisor, a written paper may be required at the end of the semester or year. Among the available topics for supervised units are:

Atomic and Molecular Spectroscopy Experimental studies using nonlinear optical techniques including multiphonon excitation, degenerate four-wave mixing, and laser-induced grating spectroscopy to study the energy structure and dynamics of atoms and molecules. (McCormack)

Laser Physics Investigations of output characteristics of high-gain gas and solid state lasers, including mode structure, intensity fluctuations, pulsing phenomena, and effects of anomalous dispersion. Studies of the properties of amplified spontaneous emission: intensity fluctuations and spectral widths. Single photoelectron counting to measure coherence properties of optical fields. (Abraham)

Nonlinear Dynamics Theoretical and computational work on nonlinear dynamical systems. Chaotic phenomena in biological systems. (Albano)

Molecular Physics Experimental, theoretical, and computational studies of molecular motion in liquids and molecular solids. The main experimental technique is pulsed solid state nuclear magnetic resonance. (Beckmann)

Haverford College offers the following courses in physics. A Haverford course and its Bryn Mawr equivalent may not both be taken for credit.

101a. Classical and Modern Physics I

102b. Classical and Modern Physics II

105a. Introduction to Physics I: Mechanics

106b. Introduction to Physics II: Electricity and Magnetism

109b. Chaos and Quantum Physics and Statistical Physics: Predictability in Science

213a. Waves and Optics

214b. Introductory Quantum Mechanics

302b. Advanced Quantum Mechanics

308a. Advanced Classical Mechanics

316b. Electronic Instrumentation and Computers

326a. Advanced Physics Laboratory

399. Senior Seminar

413. Research in Biophysics

415. Research in Nanoscale Physics

417. Research in Nonlinear Physics and Fluid Dynamics

460. Association in Teaching Basic Physics

493. Interdisciplinary Examinations of Biologically Significant Research

POLITICAL SCIENCE

The Caroline McCormick Slade Department of Political Science

Professors:

Marc Howard Ross, Ph.D., *William Rand Kenan, Jr. Professor*
Stephen Salkever, Ph.D., *Mary Katharine Woodworth Professor and*
Chairman

Associate Professor of East Asian Studies and History and

Political Science:
Michael Nyland, Ph.D.

Associate Professors:

Michael H. Allen, Ph.D.
Carol Hager, Ph.D.

Visiting Lecturer:

Deborah Diamond, Ph.D.

The major in political science aims at developing the reading, writing, and thinking skills needed for a critical understanding of the political world. Course work includes a variety of approaches to the study of politics: historical/interpretive, quantitative/deductive, and philosophical. Using these approaches, students examine political life in a variety of contexts from the small scale neighborhood to the international systems asking questions about the different ways in which humans have addressed the organization of society, the management of conflicts, or the organization of power and authority.

The major consists of a minimum of ten courses. Two of these must be chosen from among any of the following entry level courses: 101, 121, 131, 141, 151, 205, and 231. The major must include work done in two distinct fields. A minimum of three courses must be taken in each field, and at least one course in each field must be at the 300 level. In addition, majors take the senior conference (398) in the first semester of the senior year and write a senior essay (399) in the second.

Fields are not fixed in advance, but are set by consultation between the student and the departmental advisers. The most common fields have been comparative politics, international politics, American politics, and political philosophy, but fields have also been established in Hispanic studies, political psychology, women and politics, Russian studies, East Asian studies, international economics, American history, and environmental studies, among others.

Up to three courses from departments other than political science may be offered for major credit, if in the judgment of the department these courses are an integral part of the student's major plan. This may occur in two ways: (1) an entire field may be drawn from courses in a related department (such as economics or history); or (2) courses taken in related departments will count toward the major if they are closely linked with work the student has done in political science. Ordinarily, 100-level or other introductory courses taken in related departments may not be used for major credit in political science.

Students who have done distinguished work in their courses in the major and who write outstanding senior essays will be considered by the department for departmental honors.

All Haverford political science courses count toward the Bryn Mawr major; courses in related departments at Haverford which are offered for political science major credit will be considered in the same way as similar courses taken at Bryn Mawr. All Bryn Mawr majors in political science must take at least three courses in political science at Bryn Mawr, not counting Political Science 398 and 399.

A minor in Political Science consists of six courses distributed across at least two fields. At least two of the courses must be at the 300 level.

101. Introduction to Political Science An introduction to various theoretical and empirical approaches to the study of politics, with emphasis on three concepts central to political life in all societies: authority, community, and conflict. The course examines these concepts in relation to local communities, nations, and the international system. (Ross, Division I)

121. American Politics An introduction to empirical social science concepts and methods in general and to those in political science in particular; organized around the study of two major political processes in the United States: the structure and influence of public opinion and public policy formation. (staff, Division I) *Not offered in 1996-97.*

141. Introduction to International Politics An introduction to international relations, exploring its main subdivisions and theoretical approaches. Phenomena and problems in world politics examined include systems of power-management, imperialism, war, cold war, bargaining, and peace. Problems and institutions of international economy and international law are also addressed. This course assumes a reasonable knowledge of modern world history. (Allen, Division I)

151. Western Political Philosophy (Ancient and Early Modern) An introduction to the fundamental problems of political philosophy, especially the relationship between political life and the human good or goods. Readings from Plato, Aristotle, Machiavelli, Hobbes, and Rousseau. (Salkever, Division III; cross listed as Philosophy 151)

205. Democracy and Social Change: Western Europe An analysis of the changing relationship between state and society in selected western European countries, focusing on the historical context of state-society relations, the rise and fall of the "post-war settlement" between labor and capital, and the emergence of new sources of political conflict in the past two decades. (Hager, Division I)

206. Conflict and Conflict Management: A Cross-cultural Approach A study of how and why societies throughout the world differ in their levels and forms of conflict and methods of settling disputes. Explanations for conflict in and among traditional societies are considered as ways of understanding political conflict and dispute settlement in the United States and other contemporary settings. Prerequisite: one course in political science, anthropology, or sociology. (Ross, Division I; cross listed as Anthropology 206)

220. Constitutional Law A consideration of some of the leading cases and controversies in American constitutional law and of the relationship between constitutional law and other aspects of American politics. (Albert, Division I)

222. Comparative Political Movements: Environmentalism An exploration of the ways in which different cultural, economic, and political settings have shaped issue emergence and policy making. Consideration is given to the prospects for international cooperation in solving environmental problems. (Hager, Division I; cross listed with Growth and Structure of Cities 222)

231. Western Political Philosophy (Modern) A continuation of Political Science 151, although 151 is not a prerequisite. Particular attention is given to the various ways in which the concept of freedom is used in explaining political life. Readings from Locke, Hegel, J.S. Mill, Marx, and Nietzsche. (Salkever, Division III; cross listed as Philosophy 231)

236. Plato: Early and Middle Dialogues A close study of several Platonic dialogues chosen from among the following: *Apology*, *Crito*, *Euthyphro*, *Meno*, *Gorgias*, *Phaedo*, *Phaedrus*, *Symposium*. Emphasis on the character of Socrates, the nature of Socratic inquiry, and the relationship between such inquiry and political life. Some familiarity with the *Republic* is presupposed. (Salkever, Division III; cross listed as Philosophy 236) *Not offered in 1996-97.*

238. Science, Technology, and the Good Life (Dostal, Division III; cross listed as Philosophy 238)

241. The Politics of International Law and Institutions An introduction to international law, which assumes a working knowledge of modern world history and politics since the second World War. The origins of modern international legal norms in philosophy and political necessity are explored, showing the schools of thought to which the understanding of these origins give rise. Significant cases are used to illustrate various principles and problems. Prerequisite: Political Science 141. (Allen, Division I)

243. African and Caribbean Perspectives in World Politics This course makes African and Caribbean voices audible as they create or adopt visions of the world that explain their positions and challenges in world politics. Students learn analytical tools useful in understanding other parts of the world. Prerequisite: Political Science 141 or General Studies 299. (Allen, Division I)

251. Mass Media and the Political Process A consideration of the mass media as a pervasive fact of political life in the U.S. and how they influence American politics. Topics include how the media have altered American political institutions and campaigns, how selective attention to particular issues and exclusion of others shape public concerns, and the conditions under which the media directly influence the content of political beliefs and the behavior of citizens. Prerequisite: one course in political science, preferably Political Science 121. (Ross, Division I) *Not offered in 1996-97.*

272. Early China: Material, Social, and Philosophical Cultures (Nylan, Division I; cross listed as East Asian Studies and History 272) *Not offered in 1996-97.*

273. Historians, Visionaries, and Statesmen in China (Nylan, Division III; cross listed as East Asian Studies and History 273) *Not offered in 1996-97.*

274. The Chinese Village (Nylan, Division I; cross listed as East Asian Studies, Growth and Structure of Cities, and History 274) *Not offered in 1996-97.*

276. Vietnam, China, & the U.S. (Nylan, Division I; cross listed as East Asian Studies and Political Science 276)

300. Nietzsche, Hume, Aristotle: Modes of Practical Philosophy A study of three important ways of thinking about theory and practice in Western political philosophy: the reduction of theory to practice in Nietzsche's *Beyond Good and Evil*, the replacement of practice by theory in Hume's *Treatise of Human Nature*, and the articulation of theory as a moment within practical reflection in Aristotle's *Nicomachean Ethics*. Prerequisites: Political Science 151 and 231, or Philosophy 101 and 201. (Salkever; cross listed as Philosophy 300) *Not offered in 1996-97.*

306. Origins of Political Philosophy: China and Greece A consideration of two cases of the emergence of critical and self-reflective public discourse and of the subsequent problem of the relationship between philosophy and political life. Readings from Confucius, Mencius, Chuang tzu, Hsun tzu, the pre-Socratics, Plato, Aristotle, Thucydides. (Nylan, Salkever; cross listed as East Asian Studies and Philosophy 306)

308. Political Transformation in Eastern and Western Europe: Germany and Its Neighbors An analysis of the many recent changes in Europe through the lens of German politics. Germany has long been the dividing line between eastern and western Europe, a position that has become even more pivotal since the fall of Communism in the east and the European union in the west. Topics include the relevance of the Third Reich and the Cold War period to the current political situation of Germany and its neighbors, the symbolic importance of Berlin, the social and economic challenges posed by the fall of the East bloc and Germany's reunification, the revival of both the far Right and the far Left since 1989, and united Germany's pivotal role in both the European Union and eastern Europe. Prerequisite: one course in European history, politics, or culture, or the permission of instructor. (Hager) *Not offered in 1996-97.*

316. Ethnic Group Politics An analysis of ethnic and racial group cooperation and conflict in a variety of cultural contexts. Particular attention is paid to processes of group identification and definition, the politicization of race and ethnic identity, and various patterns of accommodation and conflict among groups. Prerequisite: two courses in political science, anthropology, or sociology or permission of the instructor. (Ross; cross listed as Growth and Structure of Cities 316)

321. Technology and Politics An analysis of the complex role of technology in Western political development in the industrial age. Focus on the implications of technological advance for human emancipation. Discussions of theoretical approaches to technology will be supplemented by case studies illustrating the politics of particular technological issues. Prerequisite: two courses in political science or permission of the instructor. (Hager)

325. New Social Movements in Western and Eastern Europe Our goal is to understand current changes in the relationship between citizen and state in their historical and political context. We analyze fascism in Germany and communism in Russia along with the dissident groups that arose under each system. We then examine "new social movements" that have formed since the 1960s, including the West European peace movement and Polish Solidarity. These provide a context in which to discuss the transformation of Eastern Europe and the issues that have mobilized people in the 1990s, including ethnonationalism and feminism. We end with a discussion of the possibilities for democratic politics in the new Europe. Prerequisite: one course in European history, politics, or culture, or permission of the instructor. (Hager)

327. Political Philosophy in the Twentieth Century A study of twentieth-century extensions of three traditions in Western political philosophy: the adherents of the German and English ideas of freedom and the founders of classical naturalism. Authors read include Hannah Arendt, Jurgen Habermas, John Rawls, Alasdair MacIntyre, Leo Strauss, and Iris Murdoch. Topics include the relationship of individual rationality and political authority, the "crisis of modernity," the relationship between political philosophy and modern science. Prerequisites: Political Science 151 and 231, or Philosophy 101 and 201. (Salkever; cross listed as Philosophy 327) *Not offered in 1996-97.*

346. Managing Conflict: Theory and Practice An examination of ethnic and international conflict and methods for their peaceful management. Case studies are focused on the Israeli-Palestinian and Cypriot conflicts. We explore theories and methods of third-party intervention in such disputes. The class helps conduct and facilitate a simulation of the Israeli-Palestinian conflict. Prerequisites: two political science courses, including one in peace studies. (Rothman) *Not offered in 1996-97.*

347. Advanced Issues in Peace and Conflict Studies An examination of in depth crucial issues and particular cases of interest to advanced students in Peace and Conflict Studies through common readings and student projects. Various important theories of conflict and conflict management are compared and students undertake semester-long field research. The second half of the semester focuses on the student research topics with continued exploration of conflict resolution theories and research methods. Prerequisites: Political Science 206, General Studies 111 (at Haverford), or Political Science 247 (at Haverford). (Rothman)

390. The American Regime: Philosophical Foundations of American Politics A consideration of the debates over the meaning of American politics, focusing on three major controversies: religion and politics, race and politics, and the relationship between polity and economy. Readings

for the course are drawn from major texts in American political thought, from leading cases in American constitutional law, and from modern commentary, both philosophical and policy-oriented. (Salkever; cross listed as Philosophy 390)

391. International Political Economy This seminar examines the growing importance of economic issues in world politics and traces the development of the modern world economy from its origins in colonialism and the industrial revolution. Major paradigms in political economy are critically examined. Aspects of and issues in international economic relations such as finance, trade, migration, and foreign investment are examined in the light of selected approaches. (Allen)

398. Political Science Senior Conference Required of senior majors. This course is divided into two parts. During the first eight weeks of the term, department faculty meet weekly with senior majors to discuss core questions of method and epistemology in political science and to consider a few selected examples of outstanding work in the discipline. The rest of the term is devoted to individual reading and tutorial instruction in preparation for writing the senior essay. (staff)

399. Senior Essay (staff)

403. Supervised Work (staff)

Haverford College offers the following courses in political science:

- 121a. American Politics and its Dynamics
- 123b. Politics of Difference and Discrimination
- 131a. Comparative Government and Politics
- 141a. International Politics
- 151a. Western Political Theory: Democratic Authority
- 223b. American Political Process: The Congress
- 224a. The American Presidency
- 226b. Parties and Elections
- 229a. Women, Gender, and Politics in the United States
- 233b. Nationalism and Politics in the Balkans
- 234a. Politics of Southern Europe
- 236a. African Politics: Africa in U.S. Policy
- 239a. U.S.-Latin Relations
- 240b. Inter-American Relations
- 245a. International Political Systems
- 266b. American Political Thought to the Civil War
- 346b. Topics in International Politics: Politics and Diplomacy in the Middle East and North Africa
- 391a. Research Seminar in Political Analysis
- 392b. Research and Writing on Political Problems

PSYCHOLOGY

Professors:

Richard C. Gonzalez, Ph.D., *Class of 1897 Professor*

Clark R. McCauley, Ph.D.

Earl Thomas, Ph.D. (on leave, Semester II, 1996-97)

Robert Wozniak, Ph.D.

Matthew Yarczower, Ph.D.

Associate Professor:

Leslie Rescorla, Ph.D., *Chair*

Assistant Professors:

Kimberly Wright Cassidy, Ph.D.

Professor of Biology and Psychology:

Margaret Hollyday, Ph.D.

Lecturer:

Erika Rossman Behrend, Ph.D., *Associate Dean of the
Undergraduate College*

Laboratory Lecturer:

Sherry L. Serdikoff, Ph.D.

The department offers the student a major program that allows choices of courses from among a wide variety of fields in psychology: clinical, cognitive, comparative, developmental, personality, physiological, and social. In addition to the considerable breadth offered, the program encourages the student to focus on more specialized areas through advanced course work, seminars, and especially through supervised research. Students have found that the major program provides a strong foundation for graduate work in experimental, physiological, social, developmental, cognitive, and clinical psychology.

An interdepartmental concentration in neural and behavioral sciences is available as an option to students majoring in either biology or psychology. Students electing this option must fulfill requirements of both the major and the concentration, which is administered by an interdepartmental committee. Psychology students interested in the concentration in the Neural and Behavioral Sciences should consult page 249 of the Catalogue, which describes that program.

Requirements in the major subject are Psychology 101 and 102, or their equivalent, and Psychology 205 (Experimental Methods and Statistics); eight additional courses above the 100 level, at least four of which must be selected from the following 200-level courses: Learning Theory and Behavior; Comparative Psychology; Educational Psychology; Developmental Psychology; Social Psychology; Abnormal Psychology; Theories of Personality; Human Cognition; Behavioral Neuroscience; and at least three of which must be selected from the following 300-level courses: Emotion; Nervous System: Structure and Function; Psychological Testing; History of Modern American Psychology; Learning, Psychobiology, and Psychopathology: Methods and Models; Cognitive Neuroscience; Developmental Cognitive Disorders; Developmental Psychopathology; Psychopharmacology; Current Issues in

Neuroscience and Behavior; Laboratory Methods in Brain and Behavioral Sciences; Cognitive Issues in Personality and Social Psychology; Comparative Psychology of Learning; and Advanced Topics in Learning. With permission of the department, two semesters of supervised research may be substituted for one 300-level course. Two semesters of psychology lab are required for the major. The selection of courses to meet the major requirements is made in consultation with the student's major adviser. It is expected that the student will sample broadly among the diverse fields represented in the curriculum. A student may minor in Psychology by taking Psychology 101 and 102 and any other four courses which meet the requirements of the major.

With the exception of Psychology 205, all 200-level courses require Psychology 101 and 102 or the permission of the instructor. All 300-level courses have 200-level prerequisites (listed below after description of each 300-level course). Students who have taken an introductory course in psychology elsewhere are not required to take Psychology 101 and 102. However, they are required to take two psychology courses with laboratory if their introductory courses did not include laboratory. If their introductory course was only one semester long, then they must take an additional psychology course at the 200 level so that their total number of courses in the major equals eleven. Courses at other institutions, or in another Bryn Mawr department, may be credited toward the major with the permission of the department.

Departmental honors (called Honors in Research in Psychology) are awarded on the merits of a report of research (the design and execution, the significance of the results, and the scholarship exhibited in the writing of a paper based on the research).

101, 102. Experimental Psychology Psychology as a natural science. A survey of methods, facts, and principles relating to basic psychological processes. Major topic areas include learning and motivation, human cognition, cognitive and social development, individual differences and social psychology, neural bases of behavior, and abnormal psychology. Lecture three hours, laboratory four hours a week. The laboratory provides experience with contemporary methods of research on both animals and humans. (staff, Division III)

104. Principles of Behavior Modification An examination of the assumptions, theories, data, and ethical issues concerning the attempts at behavior modification. Topics include anxiety and depression, eating disorders, sexual dysfunction, sexual pathology, addictive behavior, autistic behavior, obsessive-compulsive disorders, and self-control. Students administer a behavior modification program as part of the course. (Yarczower, Division I)

201. Learning Theory and Behavior A systematic analysis, in historical perspective, of the major conceptions of the nature of animal intelligence and the data bearing on them, with emphasis on cognitive processes and their evolution. Provides the foundation for further study of intelligence and behavior, particularly as treated in courses on human learning and memory, human cognition, comparative psychology, and behavioral neuroscience. Three lectures, five hours of laboratory each week. (Gonzalez, Division III)

202. Comparative Psychology: Evolution and Behavior Human social behavior treated in comparative perspective. Current literature dealing with evolutionary concepts is considered and applied to analyses of aggression, altruism, attachment, sexual behavior, language, and emotional expression. (Yarczower, Division I)

203. Educational Psychology Topics in the psychology of human cognitive, social, and affective behavior are examined and related to educational practice. Classroom observation is required. (Cassidy, Division I)

205. Experimental Methods and Statistics An introduction to experimental design, general research methodology, and the analysis and interpretation of data. Emphasis is placed on issues and methods involved in psychological research. Topics include descriptive and inferential statistics, experimental design and validity, analysis of variance, and correlation with regression. Each statistical method is also executed using computers. A basic introduction to the use of computers is provided. (staff, Division I and Q)

206. Developmental Psychology A topical survey of psychological development from infancy through adolescence, focusing on the interaction of organismic and environmental factors in the ontogeny of perception, language, cognition, and social interactions within the family and with peers. (Wozniak, Division I)

208. Social Psychology A survey of theories and data in the study of human social behavior. Special attention to methodological issues of general importance in the conduct and evaluation of research with human subjects. Topics include group dynamics (conformity, leadership, encounter groups, crowd behavior, intergroup conflict); attitude change (consistency theories, attitudes and behavior, mass media persuasion); person perception (stereotyping, attribution theory, implicit personality theory). Participation in a research project is required. (McCauley, Division I)

209. Abnormal Psychology An examination of the main psychological disorders manifested by individuals across the life span. It begins with a historical overview followed by a review of the major models of psychopathology, including the medical, psychoanalytic, cognitive, behavioral, and family systems. Disorders covered include attention deficit disorder, anorexia/bulimia, conduct disorder, schizophrenia, substance abuse, personality disorders, depression, anxiety disorders, disassociative disorders, and Alzheimer's disease. Symptomatology and classification, theories of etiology, research on prognosis, and studies of treatment outcome are also discussed. (Rescorla, staff, Division I)

210. Theories of Personality A survey of personality theories beginning with traditional psychoanalytic, neo-Freudian, Jungian, and Object Relations theories. Then, dispositional, cognitive, and behavioral theories of personality are reviewed, with a consideration of the state/trait debate and examination of current experimental research in personality. The course addresses each theory's understanding of the mind, account of the development of personality, and implications for therapy. (staff, Division I)

212. Human Cognition A survey of the history, theories, and data of cognitive psychology. Emphasis is placed on those models and methods that fall within the information-processing approach to human cognition. Topics include perception, object recognition, attention and automaticity, memory, mental representations and knowledge, language, and problem solving. Data from laboratory experiments (including those conducted within the course) and the performance of patients with brain damage are reviewed. Participation in (self-administered) laboratory experiments is mandatory. A research project or paper is also required. (staff, Division IIL)

218. Behavioral Neuroscience An interdisciplinary course on the neurobiological bases of experience and behavior, emphasizing the contribution of the various neurosciences to the understanding of basic problems of psychology. An introduction to the fundamentals of neuroanatomy, neurophysiology, and neurochemistry, with an emphasis upon synaptic transmission; followed by the application of these principles to an analysis of sensory processes and perception, emotion, motivation, learning, and cognition. Lecture three hours. (Thomas, Division II)

236. Evolution The development of evolutionary thought, generally regarded as the most profound scientific event of the nineteenth century, its foundations in biology and geology, and the extent of its implications to many disciplines. Emphasis on the nature of evolution in terms of process, product, patterns, historical development of the theory, and its applications to interpretations of organic history. Lecture three hours a week. (Gardiner, Saunders, Davis, Yarczower, and staff; cross listed as Anthropology, Biology and Geology 236)

301. Emotion A study of the evolution, development, communication, neuropsychology, and dysfunction of emotional processes. Questions addressed include: What is emotion and how is it measured? If I raise my brows, pull them together, raise my upper eyelids, and stretch my lips horizontally back towards my ears, then will my skin temperature be lowered? Will I also feel fear? Is an infant capable of experiencing anger, disgust? Why do we not frown when we feel happy and smile when we feel disgust? Prerequisite: any 200-level course. (Yarczower)

305. Psychological Testing Principles of measurement relevant to both experimental and individual differences psychology, with special emphasis on evaluating tests for either research or practical selection problems. Tests considered include intelligence tests (e.g. WAIS, WISC, Stanford-Binet, Raven's Matrices), aptitude tests (e.g. SAT, GRE), and personality tests (e.g. MMPI, NEO, Rorschach). Issues considered include creativity vs. intelligence testing, nature vs. nurture in I.Q. scores, and effects of base rate in using tests for selection. Participation in a research project is required. (McCauley)

312. History of Modern American Psychology An examination of major twentieth-century trends in American psychology and their eighteenth- and nineteenth-century social and intellectual roots. Topics include physiological and philosophical origins of scientific psychology, growth of American developmental, comparative, social, and clinical psychol-

ogy, the cognitive revolution, and issues of gender and race. Open only to juniors and seniors majoring in psychology. (Wozniak)

322. Learning, Psychobiology and Psychopathology: Methods and Models An integrated treatment of the behavioral methods used (1) to study the biology and the comparative psychology of learning and memory, (2) to study the neurophysiology and pharmacology of motivation and emotion, and (3) to provide laboratory models of a variety of psychopathologies, such as anxiety, depression, and addiction. Emphasis is placed on the assumptions and rationale underlying the use of these methods, together with an understanding of the nature of the processes engendered by their use. The course provides the basis for the experimental study of phenomena treated in such courses as behavioral neuroscience, abnormal psychology, and psychopharmacology. Prerequisites: Psychology 201, 202, 209, or 218. (Gonzalez, Division II)

323. Cognitive Neuroscience An integration of theories and concepts from cognitive psychology and behavioral neuroscience. The goal is a more complete understanding of human information processing (including visual perception, attention, motor behavior, and language ability) by reference to physiological correlates and underlying neural structures. Three classes of data will be considered: the performance of brain-damaged patients on various tasks, psychophysiological measures of humans and primates (including EEG and single-cell recordings), and the results from brain-imaging studies (including PET, CAT, and MRI scanning). Readings will be taken from advanced texts and professional journals. Each student will be required to lead the discussion of at least one topic or journal article. Prerequisites: Psychology 205, 212, and 218 (or equivalents), or permission of the instructor. (staff)

350. Developmental Cognitive Disorders A survey of language disorders, mental retardation, reading disability/dyslexia, and other forms of learning disability in children and adolescents, using a developmental and neuropsychological framework to study the various cognitive disorders within the context of the normal development of perception, attention, memory, language, mathematical concepts, and reading. Research discussed deals with the assessment, classification, outcome, and remediation of the major cognitive disorders manifested by children and adolescents. Prerequisite: Psychology 206 or 212. (Cassidy)

351. Developmental Psychopathology A summary of the main emotional and behavioral disorders of children and adolescents, including autism, phobias, antisocial behavior, attention deficit disorder, depression, and anorexia. Major topics covered include: contrasting models of psychopathology; assessment and classification of childhood disorders; outcome of childhood emotional problems; disorders of adolescence; and the use of psychotherapy, behavior modification, cognitive-behavioral therapy, drug therapy, and family therapy with children and adolescents. Prerequisite: Psychology 206 or 209. (Rescorla or staff)

395. Psychopharmacology A study of the role of drugs in understanding basic brain-behavior relations. Topics include the pharmacological basis of motivation and emotion, pharmacological models of psychopathology, the use of drugs in the treatment of psychiatric disorders such as

anxiety, depression, and psychosis, and the psychology and pharmacology of drug addiction. Prerequisite: Psychology 218. (Thomas, Serdikoff)

396. Topics in Neural and Behavioral Science (Grobstein; cross listed as Biology 396)

397. Laboratory Methods in the Brain and Behavioral Sciences An introduction to the elements of electronics necessary for understanding both neuronal functioning and the instruments that measure neuronal functioning. Subsequent lectures and laboratories cover principles of electrical stimulation of the brain, chemical stimulation, lesioning, histology, and recording of single cell activity and the activity of populations of cells. The emphasis is on correlating neural and behavioral events. Prerequisite: Psychology 218, which may be taken concurrently. (Thomas)

398. Cognitive Issues in Personality and Social Psychology An examination of recent research in relation to issues of social perception (e.g. stereotypes and judgements of members of stereotyped groups), inter-group conflict (e.g. sources of group cohesion and groupthink), and identification (e.g. emotional involvement with film characters, possessions, and ethnic/national groups). (McCauley)

399. Advanced Topics in Learning Reading and discussion of the primary literature of contemporary significance in animal learning, with special attention to emerging empirical and theoretical developments and to biological and comparative analyses of learning. Prerequisite: Psychology 201. (Gonzalez)

403. Supervised Research in Psychology Laboratory or field research on a wide variety of topics. Students should consult with faculty members to determine their topic and faculty supervisor. (staff)

As indicated below, several Haverford courses can be substituted for the equivalent Bryn Mawr courses for purposes of the Bryn Mawr psychology major.

- 108d. Foundations of Behavior } Psychology 101
- 108e. Foundations of Cognition }
- 109g. Foundations of Personality } Psychology 102
- 109h. Foundations of Social Behavior }
- 113b. Introduction to Psychological Statistics (Psychology 205)
- 200b. Memory and Cognition (Psychology 212; not offered in 1996-97)
- 215. Personality and Culture (Psychology 210)
- 217b. Biological Psychology (Psychology 218)
- 220a. Individuals in Groups and Society (Psychology 208)
- 221a. The Primate Origins of Society (Psychology 202)
- 309a. Abnormal Psychology (Psychology 209; not offered 1996-97)

Students should consult with the chair at Bryn Mawr to determine which other Haverford courses listed below can count toward the Bryn Mawr psychology major.

- 109g. Foundations of Personality
- 109h. Foundations of Social Behavior

Religion

- 212d. Experimental Psychology
- 212e. Research Methods in Biological Psychology
- 212g. Social Cognition
- 212h. Personality Assessment
- 214a. Psychology of Adolescence
- 311a. Advanced Personality Psychology
- 350b. Psychobiology of Stress
- 390a. Senior Thesis
- 391. Senior Research Tutorial in Cognition
- 392. Senior Research Tutorial in Personality
- 393. Senior Research Tutorial in Social Psychology
- 394. Senior Research Tutorial in Biological Psychology

RELIGION

At Haverford College

Professor:

Michael Sells, Ph.D.

Associate Professors:

David Dawson, Ph.D., *Chair*

Anne McGuire, Ph.D.

Visiting Assistant Professor:

Vera Basch Moreen, Ph.D.

Visiting Instructor:

Tracey Hucks, M.A.

The religions of the world are as diverse, complex, and fascinating as the individuals, communities, and cultures of which they are comprised. Religions propose all-encompassing interpretations of reality and shape very particular forms of life. In doing so, they make use of all aspects of human culture: art, architecture, music, literature, science, and philosophy—as well as countless forms of popular culture and daily behavior. Consequently, the Haverford Religion department believes that the fullest and most rewarding study of religions must be interdisciplinary in character, and the department accordingly helps students draw upon a variety of disciplines in their own study of religion. The Department of Religion has a special interest in fostering the skills of textual, literary, and phenomenological analysis of the texts, images, beliefs, and performances of selected religions, in combination with interpretative approaches drawn from such disciplines as anthropology, comparative literature and literary theory, gender theory, history, philosophy, psychology, and sociology. The major in Religion is likely to prove especially attractive to students who have strong interests in one or more of these disciplines combined with a particular interest in religion as a subject matter.

The department's overall goal is to enable students to become critically-informed, independent, creative, and original interpreters of

some of the religious movements that have decisively shaped human experience.

The department's course offerings currently focus on the study of Christianity, Islam, and Judaism, as well as a number of comparative or thematically organized courses. In addition, the department offers some courses in Asian religions. Students interested in Asian religions may work out a program of study in conjunction with the East Asian Studies program at Haverford and Bryn Mawr and with the Religion department at Swarthmore.

Like other liberal arts majors, the Religion major is meant to prepare students for a broad array of vocational possibilities. Religion majors typically find careers in law, public service (including both religious and secular organizations), medicine, business, and education. Religion majors have also pursued a wide variety of advanced graduate degrees in areas such as Anthropology, History, Political Science, Biology, Near Eastern Studies, and Religious Studies.

The exact structure of the student's program must be determined in consultation with the major advisor, whom the student, in conjunction with the chairperson, chooses from among the regular members of the department. The program must satisfy the following requirements, based on a total of ten half-year courses:

a. Religion 398a (approaches and methods in the study of religion) and Religion 399b (senior seminar and thesis), normally to be taken during the senior year.

b. At least 8 additional half-year courses including:

2 courses in each of three of the four distribution areas (Judaism, Christianity, Islam, Topics in the Study of Religion). At least two of these distributional courses must be 100-level courses in different areas. Rel. 110a and 111a each fulfill two distribution areas. Although the department focuses on Judaism, Christianity, and Islam, courses are offered in Eastern Religions and programs can be worked out in conjunction with Bryn Mawr, the Swarthmore religion department or the Haverford East Asian Studies program. Also required is a 300-level seminar, before the second semester of the senior year, in addition to Rel. 398.

c. No more than three 100-level courses will be counted toward the ten-course major requirement.

d. Where appropriate for the major program, two courses, with permission of the department, may be upper level courses in related departments (including foreign languages). The department requires a minimum of six courses in residence for the major; students studying abroad should plan their programs so as to meet this requirement by consulting *in advance* with the department, and by keeping the department adequately informed during their absences. In some rare cases, exceptions may be granted by petition (presented in advance) to the department.

e. Final evaluation of the major program will consist of written work (including a thesis) and an oral examination during the senior year in the context of the Senior Seminar, Religion 399b.

Honors in Religion are awarded on the basis of the quality of work in the Senior Seminar (399b), and in the major overall.

JUDAISM

120b. Introduction to Judaism Introduction to the history of the classical Jewish tradition from the Biblical period until the dawn of modernity, focusing upon the development of major theological concepts, religious institutions, ritual forms and attitudes of piety. (staff, Division III)

241a. The Religion and Literature of Ancient Israel A study of the evolution of the Biblical tradition from the period of Israelite origins to the canonization of Hebrew Scriptures. Topics to be covered include Israelite notions of covenant and law, the institutions of sacral kingship, priesthood and prophecy, conceptions of divinity and social justice and literary analysis of scriptural narrative and poetry. (staff, Division III)

242b. Mystics and Philosophers: The Spiritual Life of Medieval Iberian Jewry A religious and cultural history of Mediterranean Jewry, focusing upon Spain from the 10th to the 14th centuries, tracing the development of courtier culture and Hebrew poetry, philosophical spirituality, and mysticism. Readings in Saadiah, ha-Levi, Maimonides, and the Zohar on the nature of God and the meaning of revelation and religious language, mystical experience, ritual observance and personal and corporate eschatology. (staff, Division III)

243a. Judaisms of the Modern Era: 1740-1990 An analysis of the spiritual and intellectual dimensions of the modern Jewish experience, focusing upon the birth and evolution of its fundamental philosophical traditions, religious movements, and institutions throughout the nineteenth and twentieth centuries. Topics include: the Hasidic revolution in Eastern Europe; the dawn of reformist tendencies, historical scholarship, and incipient denominationalism in Germany; the emergence of the American Jewish community and the Zionist movement; challenges raised by feminism, the rediscovery of mysticism and resurgent orthodoxy in the twentieth century. Readings include selections from Buber, Soloveitchik, Kaplan, Heschel, Wiesel, and Grade. (staff, Division III)

246a. Heavenly Voyages and Contemplative Visions: The Jewish Mystical Tradition A survey of the major themes and texts of the Jewish mystical tradition. Topics include the heavenly voyages of the "Descenders to the Chariot" of the Talmudic period, the emergence of Kabbalah in thirteenth century Spain, and the Hasidic revolution of eighteenth century Eastern Europe. Particular attention will be paid to the fundamentals of mystical theology and practice: the conception of God, theories of the soul and the meaning of human existence, techniques of meditation and contemplative prayer, ritual theory. (staff, Division III)

348a,b. Seminar in Medieval Jewish Intellectual History Advanced study of a specific period, movement, or major thinker in medieval Jewish religious history. Prerequisite: consent of instructor.

349a,b. Seminar in Modern Jewish Intellectual History Advanced study of a specific period, movement or major thinker in modern Jewish religious history. (staff)

CHRISTIANITY

111a. Sacred Texts and Religious Traditions II An introduction to the study of religion through close reading of selected texts in their historical, literary, philosophical, and religious contexts. (Dawson, staff, Division III)

122b. Introduction to the New Testament An introduction to the critical study of the New Testament and early Christian literature. Special attention will be given to the Jewish origins of the Jesus movement, the development of traditions about Jesus in the earliest Christian communities, and the social contexts and functions of various texts. Readings will include non-canonical writings, in addition to the 27 writings of the New Testament canon. (McGuire, Division III)

124b. Introduction to Christian Theology A critical examination of the central doctrines of the Christian faith, approached within the context of contemporary theological discussion. Doctrines will be considered in relation to one another and with attention to their classic formulations, major historical transformations, and recent reformulations under the pressures of modernity and postmodernity. Representative readings will be drawn from classical Christian texts and the works of contemporary scholars and theologians. (Dawson, Division III)

206b. History and Literature of Early Christianity, 100-350 The history, literature and theology of Christianity from the end of the New Testament period to the rise of imperial Christianity under Constantine. (McGuire, Division III)

209a. The Origins of Christian Antisemitism An examination of the social and theological origins of Christian anti-Judaism and antisemitism. Topics include: the representation of Judaism, the Jewish people, and the Jewish scriptures in the New Testament and other early Christian literature; critical models for the analysis, interpretation, and critique of the sources of Christian antisemitism. (McGuire, Division III)

213a. Christianity and Classical Culture The relation between Christianity and classical culture in the first five centuries, with special attention to the role of Greco-Roman philosophy, religion, and society in the development of Christianity. (McGuire, Division III)

215a. The Letters of Paul Close reading of the thirteen letters attributed to the apostle Paul and critical examination of the place of Paul in the development of early Christianity. (McGuire, Division III)

216b. Jesus and the Gospels Critical examination of the representation of Jesus in canonical and non-canonical gospels. Attention is given to the development of traditions about Jesus, the literary form and theological perspectives of each text, and contemporary approaches to gospel interpretation. (McGuire, Division III)

221b. Women in Early Christianity The images and roles of women in early Christianity and their implications for contemporary Christianity. Topics include interpretations of Genesis 1-3, images of women and

Religion

sexuality in early Christian literature, the roles of women in various Christian communities are also discussed. (McGuire, Division III)

240b. History and Principles of Quakerism The Quaker movement in relation to other intellectual and religious movements of its time and in relation to problems of social reform. The development of dominant Quaker concepts is traced to the present day and critically examined. The course is designed for non-Friends as well as for Friends. The course is open to freshmen with consent of the instructor. (Lapsansky, Division III; cross listed as General Programs and History 240b)

277a. Modern Christian Thought 1640-1830 The impact of modernity on traditional Christian thought in Great Britain, North America, France, and Germany. Readings may include Bunyan, Locke, Hume, Edwards, Wesley, Pascal, Rousseau, Lessing, Kant. (Dawson, Division III; cross listed as Philosophy 277a)

278b. Modern Christian Thought 1830-1960 An examination of Christian thought and its philosophical and historical critics in 19th century Europe and the United States. Readings may include Kant, Schleiermacher, Hegel, Feuerbach, Nietzsche, Emerson, Kierkegaard, Bultmann, Barth, Tillich, Rahner. (Dawson, Division III; cross listed as Philosophy 278b)

290a. Feminist Christian Theologies A critical examination of selected works by contemporary feminist Christian theologians in light of classical Christian theological traditions and the distinctive challenges of contemporary culture and society. (Dawson, Division III)

ISLAM

110b. Sacred Texts and Religious Traditions I An introduction to the study of religion through close reading of selected texts in their historical, literary, philosophical, and religious contexts. (Sells, Division III)

251a. Islam The development of Islam from the time of Muhammad to the present day. Special attention is paid to the interaction between the various aspects of Islamic cultures: credal Islam, Arabic philosophy, scholastic theology (*kalam*), Shi'ism, Sufism and the world view of the poets; modern Islamic society viewed through contemporary Islamic novels and essays. (Sells, Division III)

262a. Islamic Literature and Civilization Islam refracted through its diverse cultural expressions (poetic, Sufi, *shar'ia*, novelistic, architectural) and through its geographic and ethnic diversity (from Morocco to Indonesia, focusing on Arab and Persian cultures). (Sells, Division III)

263a. The Middle East Love Lyric The love lyric of the Middle East has been central to Arabic, Hebrew, Persian, and Turkish traditions. This course will give special attention to the "remembrance of the beloved" as a cross-cultural symbol from medieval Andalusia to India. Poems will be read in modern English translations. (Sells, Division III; cross listed as Comparative Literature 263a)

264b. Islam and the West: Religious and Cultural Dimensions of Conflict The use of specific sacred texts to justify violence and exclusion, or to call for interreligious tolerance, and in some cases affirmation. The first crusade, the expulsions from Spain of 1492 and 1609, and contemporary conflicts in the Middle East and Bosnia will provide historical occasions for investigation. Writing Intensive. Fulfills Social Justice. Prerequisite: History 111, a previous course in religion, or consent of the instructor. (Sells, Division III)

353a,b. Islamic Philosophy and Theology Selected topics and figures in Islamic philosophy, scholastic theology (*kalam*) or mystical philosophy. The relation of Islamic philosophy to Greek, Jewish and Indian thought are also discussed. Prerequisite: consent of instructor. (Sells)

TOPICS IN THE STUDY OF RELIGION

110a,b. Sacred Texts and Religious Traditions I An introduction to the study of religion through close reading of selected texts in their historical, literary, philosophical, and religious contexts. Topic for Fall 1995: Sacred texts and religious traditions of Hinduism and Islam. (Sells, staff, Division III)

123b. Introduction to the Classic Texts of Asian Religions Classical Texts of the Hindu, Buddhist, and Taoist traditions, with special attention to the *Upanishads*, the *Bhagavad Gita*, the *Dhammapada*, the *Vimalakirti Sutra*, Lao Tzu, Chuang Tzu, and the *Platform Sutra*. Focus will be on close reading of the primary texts, detailed literary analysis, and various modes of interpretation. (Sells, Division III)

222a. Gnosticism The phenomenon of Gnosticism examined through close reading of primary sources, including the recently discovered texts of Nag Hammadi. Topics include the relation of Gnosticism to Greek, Jewish, and Christian thought; the variety of Gnostic schools and sects; issues in the interpretation of Gnostic texts, including Gnostic uses of gender imagery and mythology. (McGuire, Division III)

255b. Anthropology of Religion (MacGaffey, Division I; cross listed as Anthropology 255b)

269b. Cultural Identity in Third World Literatures This course covers the encounter of traditional religious and cultural values with the modern West as reflected in non-Western novels, short stories, poetry and folk tales. (Sells, Division III)

284b. The Allegorical Imagination An exploration of allegory as a recurring literary, philosophical, and religious phenomenon in Western literature and culture. Readings may include Philo, Origen, Augustine, Prudentius, Dante, Bunyan, Coleridge, Emerson, Melville, Auerbach, Bloom, Fletcher, De Man. (Dawson, Division III; cross listed as Comparative Literature 284b)

286a. Moral Philosophy and Christian Ethics An examination of various relationships between religion, theology, ethical theory, and

Religion

moral practice. Readings may include Augustine, Aquinas, Luther, Kant, Nietzsche, M. Nussbaum, C. Taylor, B. Williams. (Dawson, Division III)

343a,b. Seminar in Religions of Antiquity and Biblical Literature

Advanced study of some period or set of problems in the field. The course may be repeated for credit with change of content. Prerequisite: consent of instructor. (McGuire)

355b. Seminar in Myth and Symbol Modern interpretations of myth and symbol, including those of Jung, Rene Girard, Mircea Eliade, P. Ricoeur, H. Corbin, Gershom Scholem and Wendy O'Flaherty. The modern theories are discussed in connection with a classical text from one of the Abrahamic religious traditions. (Sells)

358a,b. Seminar in Comparative Mysticism Readings in Jewish, Christian and Islamic mystical thought, with a focus on the *Zohar*, Meister Eckhart, the Beguine mystics Hadewijch of Antwerp and Marguerite Porete, and the Sufi Master Ibn 'Arabi. The texts are a basis for discussions of comparative mysticism and of the relationship of mysticism to modern interpretive and critical theories. (Sells)

360a,b. Seminar in Modern Religious Thought An examination of the works of some major religious thinker or theologian, or it investigates a major religious or theological issue. May be repeated for credit with change of content. Prerequisite: consent of instructor. (Dawson)

OTHER COURSES

398a. Approaches and Methods in the Study of Religion Advanced work in four areas: 1) critical study of scriptures, including historical, literary, and social-scientific approaches; 2) study of non-written religious expression: art, ritual, etc; 3) hermeneutics and the relation of text, historical context, secondary sources, and theory; 4) the scholarly study of religious traditions: how to formulate a project, set research priorities, use the library judiciously and in a timely fashion, and work through an issue in a concrete way. Required of all senior majors. Prerequisite: five courses in religion. (staff)

399b. Senior Seminar and Thesis Research and writing of the senior thesis in connection with regular meetings with a thesis advisor from the department. Required of senior majors. Prerequisite: 5 courses in religion and 398a. (staff)

480a,b. Independent Study Conducted through individual tutorial as an independent reading and research project. (staff)

ROMANCE LANGUAGES

Coordinators:

Grace Armstrong, Ph.D., *Professor of French*

Nancy Dersofi, Ph.D., *Professor of Italian*

María Cristina Quintero, Ph.D., *Associate Professor of Spanish*

The Departments of French, Italian, and Spanish cooperate in offering a major in Romance languages which requires advanced work in at least two Romance languages and literatures. Additional work in a third language and literature is suggested.

The requirements for the major are a minimum of nine courses, including the Senior Conference or Senior Essay described below, in the first language and literature (if Italian is chosen as the first language, only eight courses are required) and six courses in the second language and literature, including the Senior Conference in French. Students should consult with their advisers no later than their sophomore year in order to select courses in the various departments which complement each other.

The following sequence of courses is recommended when the various languages are chosen for primary and secondary concentration, respectively (see the departmental listings for course descriptions):

First Language and Literature

French

French 101-102 or 101-105
four courses chosen among
French 201, 202, 203, 204,
205, or 206
French 212 or 260
two 300-level courses
in literature

Italian

Italian 101, 102
Italian 201 or 205
Italian 301
Italian 303
two literature courses
at the 200
or 300 level

Spanish

Spanish 120
Spanish 204 or 206
four 200-level
literature courses
two 300-level
literature courses

Second Language and Literature

French 101-102 or 101-105
French 201, 202, 203, 204,
205, or 206
French 212 or 260
one 300-level course in
literature

Italian 101, 102
Italian 201 or 205
Italian 301
one other literature
course at the 200 or
300 level

Spanish 120
Spanish 204 or 206
two 200-level
literature courses
two 300-level
literature courses

In addition to the course work described above, Romance Language majors must take one semester of Senior Conference in French and the

Senior Essay in Spanish, when those languages are chosen. When Italian is chosen, students must either select an additional literature course in Italian at the 200 or 300 level or take Italian 403, offered in consultation with the department. An oral examination (following the current model in the various departments) is given in either of the two languages, according to the student's preference, and students follow the practice of their principal language as to written examination or thesis.

Interdepartmental courses at the 200 or 300 level are offered from time to time by the cooperating departments. These courses are conducted in English on such comparative Romance topics as epic, romanticism, or literary vanguard movements of the twentieth century. Students should be able to read texts in two of the languages in the original.

RUSSIAN

Professors:

Dan E. Davidson, Ph.D.

George S. Pahomov, Ph.D.

Associate Professor:

Elizabeth C. Allen, Ph.D., *Chairman*

Assistant Professor:

Christine Borowec, Ph.D., *Major Adviser*

Visiting Professor from Moscow State University:

Maria Shardakova, Ph.D.

Lecturer:

Marc Boots-Ebenfield, Ph.D.

At Haverford College

Linda G. Gerstein, Ph.D., *Professor of History*

Vladimir Kontorovich, Ph.D., *Associate Professor of Economics*

The Russian major is a multi-disciplinary program designed to provide the student with a broadly based understanding of Russian literature, thought, and culture. The major places a strong emphasis on the development of functional proficiency in the Russian language. Language study is combined with a specific area of concentration, to be selected from the fields of Russian literature, history, economics, language/linguistics, or area studies. A total of ten courses are required to complete the major: two in Russian language at the 200 level or above; four in the area of concentration, two at the 200 level and two at the 300 level or above (for the concentration in area studies, the four courses must be in four different fields); three in Russian fields outside the area of concentration; and either Russian 398, Senior Essay, or Russian 399, Senior Conference.

Majors are encouraged to pursue advanced language study in Russia on summer, semester, or year-long academic programs. Majors may also take advantage of intensive immersion language courses offered during the summer by the Bryn Mawr Russian Language Institute. Students are encouraged to live in Russian House and to participate in weekly Russian tables, film series, Russian Club, and Russian Choir.

The senior conference is an interdisciplinary seminar offered in the spring semester. Recent topics have included Pushkin and his times, the decade of the 1920s, and the city of St. Petersburg. In addition, all Russian majors take senior comprehensive examinations which cover the area of concentration and Russian language competence. The exams are administered in late April.

All Russian majors are considered for departmental honors at the end of their senior year. The awarding of honors is based on a student's overall academic record and all work done in the major.

Students wishing to minor in Russian must complete six units at the 100 level or above, two of which must be in Russian language.

001, 002. Intensive Elementary Russian Study of basic grammar and syntax. Fundamental skills in speaking, reading, writing, and oral comprehension are developed. Nine hours a week including conversation sections and language laboratory work. Both semesters are required for credit; three units of credit are awarded upon completion of Russian 002. (Davidson, staff)

101, 102. Intermediate Russian Continuing development of fundamental skills with emphasis on vocabulary expansion in speaking and writing. Readings in Russian classics and contemporary works. Seven hours a week. (Borowec, staff)

201, 202. Advanced Russian Intensive practice in speaking and writing skills using a variety of modern texts and contemporary films and television. Emphasis on self-expression and a deeper understanding of grammar and syntax. Five hours a week. (Boots-Ebenfield, staff)

210. Nineteenth-century Russian Literature in Translation I A survey of major works from the first half of the nineteenth century. Covers narrative poetry, drama, short stories, and novels by such authors as Pushkin, Lermontov, Gogol, Dostoevsky, Turgenev, and Tolstoy. All readings, lectures, and discussions in English. (Allen, Division III)

211. Nineteenth-century Russian Literature in Translation II A survey of major novels and short stories from the second half of the nineteenth century, including *Crime and Punishment* and *Anna Karenina*. Works by Turgenev, Chekhov, and Bunin also discussed. All readings, lectures, and discussions in English. (Borowec, Division III)

212. Russian Literary Modernism in Translation Survey of novels, short stories, plays, and poetry associated with the "Silver Age" of Russian literature. Contemporaneous works of dance, music, and painting are also examined. Readings include: Bely's *Petersburg*, Chekhov's *The Cherry Orchard* and *Three Sisters*, Gorky's *Mother*, Solgub's *The Petty Demon*, Blok's *The Twelve*, Mayakovsky's "A Cloud

in Trousers," and stories by Chekhov, Andreyev, and Bunin. (Allen, Division III) *Not offered in 1996-97.*

213. Russian Literature from Revolution to Glasnost in Translation Survey of the major trends in Russian literature after the 1917 revolution: revolutionary literature, utopian and ornamental prose, proletarian writings, socialist realism, satire "for the desk drawer," emigre works, records of the purges, WWII, post-Stalinist Thaw and prison camps, and glasnost stories. Readings include Pilnyak's *Naked Year*, Zamyatin's *We*, Olesha's *Envy*, Sholokhov's *Quiet Flows the Don*, Gladkov's *Cement*, Bulgakov's *Master and Margarita*, Akhmatova's "Requiem," Panova's *The Train*, Ginzburg's *Into the Whirlwind*, Pasternak's *Dr. Zhivago*, Solzhenitsyn's *Ivan Denisovich*, and stories by Nabokov and Tolstaya. (Borowec, Division III) *Not offered in 1996-97.*

230. Introduction to Russian Linguistics Examines the structure of modern Russian, concentrating on the sound system and word formation. In-depth study of vowel reduction, consonant assimilation, and vowel/zero alternation, as well as the historical and contemporary mechanisms of noun, verb, and adjective formation. Agreement, gender, and related issues are also discussed. No previous knowledge of linguistics required. Prerequisite: two years of Russian. (Boots-Ebenfield)

254. Russian Culture and Civilization in Translation A history of Russian culture—its ideas, its value and belief systems—from the origins to the present, which integrates the examination of works of literature, art, and music. (Pahomov, Division III) *Not offered in 1996-97.*

260. Russian Women Authors in Translation A study of works in various genres, tracing women's contributions throughout the history of Russian literature. An examination of thematic and formal characteristics of works by Catherine the Great, Durova, Kovalevskaja, Akhmatova, Tsvetaeva, Panova, Baranskaia, Tolstaia, and others. All readings and lectures in English. (Borowec, Division III)

277. Nabokov in Translation A study of Nabokov's writings in various genres, focusing on his fiction and autobiographical works. The continuity between Nabokov's Russian and English works is considered in the context of the Russian and Western literary traditions. All readings and lectures in English. (Borowec, Division III; cross listed as English 277) *Not offered in 1996-97.*

301, 302. Fourth-year Russian Intensive practice in speaking, reading, writing, and oral comprehension. Advanced language training through the study of literary and other texts. (Pahomov)

313, 314. Fifth-year Russian Focuses on stylistic variations in oral and written Russian. Examples drawn from contemporary film, television, journalism, fiction, and non-fiction. Emphasis on expansion and refinement of speaking and writing skills. (staff)

315. Soviet Writers of the Last Thirty Years A study of Soviet writers of the last three decades, emphasizing the thematic and stylistic diversity which has emerged in contemporary Soviet prose. Authors include

Aitmatov, Rasputin, Rybakov, Abramov, Shukshin, Grekova, and Okudzhava. (staff, Division III) *Not offered in 1996-97.*

320. Present Day Russian Literature Close reading of contemporary, post-glasnost Russian writers with emphasis on the study of new voices in literature and narratives expressing the aspirations, crises, and developments in post-Soviet society. Texts by prose writers such as Pristavkin, Petrushevskaya, Krivonosov, Selyanova, Ipin, Tokareva, Pyetsukh, Shiryayev, Said-Shah, Bertsinskaya, Stakhov, and others. All lectures and readings in Russian. (staff, Division III) *Not offered in 1996-97.*

330. The Russian Verb An examination of the Russian verb from historical and modern perspectives. The first half of this course considers the structure of the verb: the one-stem system of conjugation, stress, participle formation and use, and verbal derivation. The second half analyzes how suffixes, prefixes, and roots interact to determine the meaning of a verb. The interaction of these subcomponents is used to explain such notions as aspect, s'a and voice, and verbs of motion. Suggested prerequisite: Russian 230 or some linguistics is preferred. (Boots-Ebenfield, Division III) *Not offered in 1996-97.*

380. Seminar in Russian Literature An examination of a focused topic in Russian literature such as a particular author, genre, theme, or decade. Introduces students to close reading and detailed critical analysis of Russian literature in the original language. Readings in Russian. Some discussions and lectures in Russian. Topic for 1996-97: *Dr. Zhivago* and its place in Russian culture. Prerequisites: Russian 201 and one 200-level Russian literature course. (Pahomov, Division III)

398. Senior Essay Independent research project designed and conducted under the supervision of a departmental faculty member. May be undertaken in either fall or spring semester of senior year. (staff)

399. Senior Conference Exploration of an interdisciplinary topic in Russian culture. Topic varies from year to year. Requirements may include short papers, oral presentations, and examinations. (staff)

403. Supervised Work (staff)

The following Bryn Mawr courses are also of interest to Russian majors:

Economics 206. International Economics

Economics 216. International Finance and Economic Policy

Economics 306. Advanced International Economic Policy

General Studies 112. The Great Questions of Russian Literature

Haverford College offers the following courses in Russian and of interest to Russian majors:

Economics 211a. The Soviet System and Its Demise

History 245. Russia in the Twentieth Century

History 246a. Literature and Society in Modern Russia

Swarthmore College offers the following course of interest to Russian majors:

Russian 79. Russian Women Writers in Translation

Russian 80. Literature of Dissent in Translation

Russian 112. The Acmeists

Seminar in either the Russian Short Story or Chekhov

SOCIOLOGY

Professors:

Judith R. Porter, Ph.D.

Robert E. Washington, Ph.D.

Associate Professors:

David Karen, Ph.D., *Chairman*

Mary J. Osirim, Ph.D.

Lecturer:

Teresa Labov, Ph.D.

The major in sociology provides a general understanding of the structure and functioning of modern society, its major institutions, groups, and values, and the interrelations of these with personality and culture. Students examine contemporary social issues and social problems and the sources of stability, conflict, and change in both modern and developing societies. The department offers training in theoretical and qualitative analysis; research design and statistical analysis; and computer-based data processing. It also maintains the Social Science Data Library and Statistical Laboratory.

Requirements for the major are Sociology 102, 103, 265, 302, Senior Seminar (398, 399), four additional courses in sociology, at least one of which must be at the 300 level, and two courses in sociology or an allied subject. Allied courses are chosen from a list provided by the department.

A major in sociology with a concentration in the field of African American studies or in the field of gender and society is also available. Students electing these fields must fulfill the major requirements (102, 103, 265, 302, and 398, 399); the core course in the special field (211: African American Culture and Community, or 201: The Study of Gender in Society); two 200-level courses in the department, and two additional courses in sociology or an allied field, each offering opportunity for study in the special field; and one additional 300-level course in sociology. The department specifies the allied courses which may be elected in each field. Students should inquire about the possibility of coordinated work with Haverford and Swarthmore Colleges and the University of Pennsylvania.

Honors in sociology is available to those students who have an average in the major of 3.5 or above and who produce a paper in a departmental course during senior year that is judged outstanding by the department. Independent research is encouraged for any major during

the senior year. The A.B./M.A. option is available to qualified majors. Graduate seminars are open to majors pursuing the A.B./M.A. option and to other qualified majors by special permission.

Requirements for the minor are Sociology 102, 265, 302, and three additional courses within the department. Minors in the concentrations of African American studies and gender and society are not available.

102. Society, Culture, and the Individual Analysis of the basic sociological methods, perspectives, and concepts used in the study of society, with emphasis on culture, social structure, personality, their component parts, and their interrelationship in both traditional and industrial societies. The sources of social tension, order, and change are addressed through study of socialization and personality development, mental illness, delinquency, and modernization. (Porter, Division I)

103. U.S. Social Structure Analysis of the structure and dynamics of modern U.S. society. Theoretical and empirical study of statuses and roles, contemporary class relations, the distribution of political power, and racial, ethnic, and gender relations in the U.S.; and stratification in education systems, complex organizations, the labor market, and the modern family. (Osirim, Division I)

201. The Study of Gender in Society The definition of male and female social roles and sociological approaches to the study of gender in America, with attention to gender in the economy and work place, the historical origins of the American family, and analysis of class and ethnic differences in gender roles. Of particular interest in this course is the comparative exploration of the experiences of women of color in the U.S. (Osirim, Division I) *Not offered in 1996-97.*

205. Social Inequality Introduction to the major sociological theories of gender, racial-ethnic, and class inequality, with emphasis on the relationships among these forms of stratification in the contemporary United States, including the role of the upper class(es), and inequality between and within families, in the work place, and in the educational system. Global stratification is examined as well. (Karen, Division I)

207. The Nature of Prejudice: Intergroup Relations Cultural, structural, and personality sources of racial and ethnic prejudice; basic theories of prejudice, attitude change, and the response of minority communities illustrated by analysis of racism and anti-semitism in cross-cultural perspective. Topics include comparisons of black-white relations in the United States and South Africa; anti-semitism in the United States and the Soviet Union; the effect of law in racial-ethnic attitudes; sources of change in intergroup relations; and the effect of prejudice on personality, family, and educational processes. (Porter, Division I) *Not offered in 1996-97.*

211. African American Culture and Community The social development and functioning of the African American community as the embodiment of a unique pattern of experiences in American society. Topics include African heritage, slavery, reconstruction, urbanization, changing family and community organization, the struggle for civil rights, and cultural developments. (Washington, Kilbride, Division I; cross listed as Anthropology and Growth and Structure of Cities 211) *Not offered in 1996-97.*

212. Sociology of Poverty Analysis of the causes and effects of poverty in the United States. Topics include trends in poverty and the relationship between poverty, the economy, the political system, the family, and educational institutions. The culture of poverty approach and government programs for the poor, including current programs, are analyzed. (Porter, Division I)

214. Aging and Generational Conflict A consideration of the latter stages of the human life cycle, the condition of old age, and current policies and programs for older adults. Major areas of analysis: the significance of the age factor in the demographic transformation of American society; the role and status of the elderly as a population group; the social perception of the aging process; the major problems and issues specifically affecting the aged; the major social, psychological, economic, political, and physical aspects of the aging process; the legislative, regulatory, and service context pertaining to the field of aging. All are considered in the context of conflict over scarce resources across generations. (Kaye)

217. The Family in Social Context A consideration of the family as a social institution, looking at how societal and cultural characteristics and dynamics influence families; how the family reinforces or changes the society in which it is located; and how the family operates as a social organization. Included is an analysis of family roles and social interaction within the family. Major problems related to contemporary families are addressed, such as domestic violence and divorce. Crosscultural and subcultural variations in the family are considered. (Osirim, Division I)

218. Modernization: Problems of Development in Third World Societies Introduction to the issues of modernization through study of the historical patterns of the Western capitalist, the Soviet socialist, and the Japanese communal capitalist patterns of modernization. Topics include theories of modernization; feudal, caste, colonial, and other pre-modern forms of social organization; the problems of mass poverty, urbanization, ethnic conflict, rapid population growth, political instability, and military intervention; the socialist and capitalist alternatives to third world modernization. Empirical illustrations include Afghanistan, Kenya, India, Indonesia, South Africa, and Cuba. (Washington, Division I; cross listed as Growth and Structure of Cities 218) *Not offered in 1996-97.*

225. Women in Society: Third World Women A study of the contemporary experiences of women of color in the developing world. The household, work place, community, and the nation-state, and the positions of women in the private and public spheres, are compared cross-culturally. Topics include feminism, identity politics, and self-esteem; and tensions and transitions encountered as nations embark upon development. (Osirim, Division I)

231. Urban Sociology Analysis of urban social structures; the theoretical legacies of classical sociological theory and the Chicago school; demographic and ecological characteristics of American cities; ethnic and racial bases; stratification and political structures; crime and problems of social control; comparative analyses of selected third world

cities. (Washington, Division I; cross listed as Growth and Structure of Cities 231) *Not offered in 1996-97.*

245. Urban Social Problems A survey of problems in American society as seen by sociologists and social critics, with emphasis on analytical perspectives for understanding the sources and consequences of American social problems. Topics include crime, poverty, drug addiction, racism, urban crises, sexism, health care, and family disorganization. (Washington, Division I; cross listed as Growth and Structure of Cities 245) *Not offered in 1996-97.*

250. Society and Language Language use and attitudes to language users are crucial elements in the analysis of conflict and inequality for every society, regardless of size. Topics include: gendered language, adolescent slang, language planning, discourse analysis, conversation, non-standard languages, bilingual education, legal writing, and politically correct vocabularies. (Labov, Division I)

258. Sociology of Education Major sociological theories of the relationships between education and society focusing on effects of education on inequality in the United States and the historical development of primary, secondary, and post-secondary education in the United States. Other topics include education and social selection, testing and tracking, micro- and macro-explanations of differences in educational outcomes, international comparisons. (Karen, Division I)

265. Research Design and Statistical Analysis An introduction to the conduct of empirical, especially quantitative, social science inquiry. Students, in consultation with the instructor, may select research problems to which they apply the research procedures and statistical techniques introduced during the course. Using SPSS, a statistical computer package, students learn techniques such as crosstabular analysis, multiple regression-correlations analysis, and factor analysis. (Karen, Division I and Quantitative Skills)

266. Schools in American Cities This interdisciplinary course examines the condition of contemporary urban schools in the United States. Major topics include the history and politics of city schools, learning in the urban classroom, school desegregation, bilingual education, employment-related education, and current school reform strategies. (staff, Division I) *Not offered in 1996-97.*

302. Social Theory An examination of classical and modern theorists selected on the basis of their continuing influence on contemporary sociological thought. Theorists include Marx, Weber, Durkheim, Freud, Lukacs, Gramsci, Parsons. (Washington)

309. Sociology of Religion An analysis of the relationship between religion and society, emphasizing the connection between religious systems and secular culture, social structure, social change, secular values, and personality systems in cross-cultural perspective. The theories of Marx, Weber, Durkheim, and Freud, among others, are applied to analysis of the effect of religion on economic modernization, political nationalism, and social change and stability, and the effect of social class, secular culture, and personality patterns on religion. (Porter)

310. Sociology of AIDS An analysis of major sociological issues related to AIDS, including the social construction of the disease, social epidemiology, the psychosocial experience of illness, public opinion and the media, and the health care system. The implications of political and scientific controversies concerning AIDS will be analyzed, as will the impact of AIDS on the populations most affected in both the U.S. and Third World countries. (Porter)

311. Stability and Change in Modern Africa: A Comparative Study of Development in Nigeria and Zimbabwe This course seeks to engage students in theoretical analysis and decision making around contemporary problems of development in Nigeria and Zimbabwe. After an examination of the major theoretical perspectives in the sociology of development, students apply these theories and assume the role of policy makers in case discussions focusing on: the debt crisis and the adoption of structural adjustment policies, education and employment creation in both the formal and informal sectors, and the role of women in development. In addition, through readings and case discussions, this course familiarizes students with the historical background and some of the macro-sociological issues experienced by these nations, such as British colonialism and the liberation struggle in Zimbabwe, and the military rule and the transition to democracy in Nigeria. These experiences are examined with attention given to gender, racial/ethnic, and class cleavages in these societies. (Osirim) *Not offered in 1996-97.*

312. East African Social, Political, and Cultural Development An examination of various problems of East African development: urbanization, poverty, social deviance, class inequality, capitalist business enterprises, ethnic divisions, governmental mismanagement and corruption, popular culture, and the economic role of women. (Washington; cross listed as Africana Studies 312)

320. Sports in Society Using a sociological, historical, and comparative approach, this course examines such issues as: the role of the mass media in the transformation of sports; the roles played in sports by race, ethnicity, class, and gender; sports as a means of social mobility; sports and socialization; the political economy of sports; and sports and the educational system. (Washington, Karen)

330. Comparative Economic Sociology: Advanced and Third World Societies A comparative study of the production, distribution, and consumption of resources in Western and developing societies from a sociological perspective, including analysis of pre-capitalist economic formations and of the modern world system. Topics include the international division of labor, entrepreneurship, and the role of the modern corporation. Evidence drawn from the United States, Britain, Nigeria, Brazil, and Jamaica. (Osirim; cross listed as Growth and Structure of Cities 330)

340. Political Sociology: Power and Participation in the United States Focuses on the relationship between political power and political participation—especially social movements—in the United States. The different ways that power manifests itself in the production of social policy and the way that it affects different forms of political participation are examined. The main focus of the course is on the origins,

processes, and successes of recent social movements; for example, the civil rights movement, the New Right, the Native-American movement, etc. (Karen) *Not offered in 1996-97.*

355. Marginals and Outsiders: The Sociology of Deviance An examination of unconventional and criminal behavior from the standpoint of different theoretical perspectives on deviance (e.g., social disorganization, symbolic interaction, structural functionalism, marxism) with particular emphasis on the labeling and social construction perspectives; and the role of conflicts and social movements in changing the normative boundaries of society. Topics will include homicide, robbery, drug addiction, alcoholism, mental illness, prostitution, homosexuality, and white collar crime. (Washington)

398. Senior Seminar: Sociology of Culture Seminar on theoretical issues in the sociology of culture; required of all senior sociology majors. Open to Bryn Mawr senior sociology majors only. (Washington)

399. Senior Seminar: Context of Individual Behavior Microsociological theories such as exchange theory, symbolic interactionism, and ethnomethodology are discussed and contrasted with modern macrosociological traditions. This seminar is required of all senior sociology majors and open to senior social science majors in other departments by permission of instructor. (Porter)

403. Independent Study Students have the opportunity to do individual research projects under the supervision of a faculty member. (staff)

Haverford College offers the following courses in sociology. Bryn Mawr majors should consult their department about major credit for courses taken at other institutions.

155. Foundations in Social Theory

252b. Social Change

315a. Quantitative Methods

450. Senior Seminar

SPANISH

Professor:

Enrique Sacerio-Garí, Ph.D., *Dorothy Nepper Marshall Professor of Hispanic and Hispanic-American Studies*

Associate Professor:

María Cristina Quintero, Ph.D., *Chairman and Major Adviser*

Assistant Professor:

Joseba Gabilondo, Ph.D.

Lecturer:

Raquel A. Green, Ph.D.

Instructor:

Peter Brampton Koelle, J.D., Ph.D.

The major in Spanish offers a program of study in the language, literature, and culture of Spain and Latin America. The program is designed to develop linguistic competence and critical skills, as well as a profound appreciation of the culture and civilization of the Hispanic world.

The language courses provide solid preparation and practice in spoken and written Spanish, including a thorough review of grammar and vocabulary, supplemented with cultural readings and activities. Spanish 110 and 120 prepare students for advanced work in literature and cultural studies, while improving competence in the language. The introductory literature courses treat a selection of the outstanding works of Spanish and Spanish American literature in various periods and genres. Spanish 204 and 206 are devoted to advanced language training and afford practice in spoken and written Spanish. Spanish 240 considers the political, social, and cultural history of the Hispanic and Hispanic-American peoples. Advanced literature courses deal intensively with individual authors or periods of special significance.

Students in all courses are encouraged to make use of the language learning center and to supplement their course work with study in Spain or Spanish America either in the summer at the *Centro* in Madrid (see p. 68) or during their junior year. Residence in the Haffner Language House for at least one year is recommended.

All students who have taken Spanish at other institutions and are planning to enroll in Spanish courses at Bryn Mawr must take a placement examination. The exam is administered by the Spanish department during freshman orientation for the incoming class or on the day before classes begin for returning students.

Requirements for the Spanish major are Spanish 120, four 200-level literature courses (one of which may be substituted for by Spanish 204 or Spanish 240), Spanish 206 (unless specifically exempted by the department, three 300-level literature courses, and the Senior Essay. Students whose pre-college training includes advanced work in literature may, with the permission of the department, be exempted from taking Spanish 120. This major program prepares students appropriately for graduate study in Spanish.

Independent research (Spanish 403) is offered to students recommended by the department. The work consists of independent reading, conferences, and a long paper.

Departmental honors are awarded on the basis of a minimum grade of 3.5 in the major, evaluation of the senior essay, and the recommendation of the department.

Requirements for a minor in Spanish are six courses in Spanish beyond Intermediate Spanish, at least one of which must be at the 300 level.

The Department of Spanish cooperates with the Departments of French and Italian in the Romance Languages major (see page 208). The department participates with departments such as anthropology, economics, history of art, and political science in offering a concentration in Hispanic and Hispanic-American studies (see page 249). The department also participates in a teacher certification program. For more information see the description of Education in this catalogue.

001, 002. Elementary Spanish Grammar, composition, oral, and aural training; readings from Spain, Spanish America, and the Hispanic community in the United States. This is a year-long course, both

semesters are required for credit. One section of this course is intensive and meets nine hours a week. (Gabilondo, Green)

003, 004. Intermediate Spanish Intensive grammar reviews, exercises in composition and conversation, selected readings from modern Spanish. This is a year-long course, both semesters are required for credit. (Koelle, Quintero)

005. Intensive Intermediate Spanish A thorough review of grammar, with intensive oral practice (group activities and individual presentations), writing of short essays and a longer final project, and readings from the Hispanic world. Prerequisite: Intensive Elementary Spanish or the recommendation of the department. (Sacerio-Garí)

110. Estudios culturales de España e Hispanoamérica An introduction to the history and cultures of Spain and Spanish America: geography, socio-political issues, folklore, art, literature, multi-cultural perspectives. Prerequisite: Spanish 004 or 005 or placement. (Gabilondo, Division III)

120. Introducción al análisis literario Readings from Spanish and Spanish-American works of various periods and genres (drama, poetry, short stories). Special attention to improvement of grammar through compositions. Prerequisite: Spanish 004 or 005 or placement. (Sacerio-Garí, Division III)

204. Conversación (nivel avanzado) Practice in various modes of oral expression with review of selected points of grammar and Spanish phonetics. Exercises in simultaneous interpretation. Class is divided into small groups for discussions. Readings, oral reports, compositions. Prerequisite: Spanish 110 or 120 or placement. (Green)

206. Composición (nivel superior) A systematic study of the structure of modern Spanish. Practice in translation of scientific and literary texts. Free compositions, creative writing. Prerequisite: permission of the instructor. (Sacerio-Garí)

208. Drama y sociedad en España A study of the rich, dramatic tradition of Spain from the Golden Age (16th and 17th centuries) to the twentieth century within specific cultural and social contexts. The course considers a variety of plays as manifestations of specific socio-political issues and problems. Topics include: theater as a site for fashioning a national identity, the dramatization of gender conflicts, plays as vehicles of protest in repressive circumstances. Prerequisites: Spanish 110 or 120 or placement. (Quintero, Division III) *Not offered in 1996-97.*

223. Románticas, adúlteras, histéricas: negociaciones de la identidad femenina en la novela del siglo XIX A study of the ways female identities are constructed in the nineteenth century. Authors include Gertrudis Gómez de Avellaneda, Benito Pérez Galdós, Emilia Pardo Bazán, Rosalía de Castro and Juana Manuela Gorriti. Prerequisite: Spanish 110 or 120 or placement. (Gabilondo, Division III)

224. Culturas periféricas en España A study of different peripheral cultures and the process of decentering the modern literary canon. Emphasis on literature by women, literature in other Spanish languages and ethnicities (Basque, Galician, Catalanian, and Andalusian) and mass culture (best-sellers, TV, travel guides). Prerequisite: Spanish 110 or 120 or placement. (Gabilondo, Division III) *Not offered in 1996-97.*

225. La Poesía hispanoamericana Study of poetic language from *modernismo* to the present. Special attention to key figures. (Sacerio-Garí, Division III) *Not offered in 1996-97.*

226. Almodóvar y sus chicas: Gay Cinema and Cultural Transformation in Contemporary Spanish and Spanish American Film A study of Spain's political and cultural transformation (*la transición*) after Franco's dictatorship and the central role gay culture and more specifically gay film played in imagining and representing the cultural transformations (*la movida*) in contemporary Spain. Film director Pedro Almodovar's filmography is the point of departure. Course is taught in English. Students wishing major credit must do appropriate assignments in Spanish. (Gabilondo, Division III) *Not offered in 1996-97.*

240. Hispanic Culture and Civilization A brief survey of the political, social, and cultural history of Spain and Spanish America. Topics include the spread of the Spanish Empire, indigenous cultures, the condition of, and polemics about, the "Indians" in the new world, Spanish-American independence, current social and economic issues, Latin America's multi-culturalism, Latinos in the United States. Prerequisite: permission of the instructor. (Sacerio-Garí, Division III)

260. Ariel/Calibán y el discurso americano A study of the transformations of Ariel/Calibán as images of Latin-American culture. Prerequisite: Spanish 110 or 120 or placement. (Sacerio-Garí, Division III) *Not offered in 1996-97.*

265. Escritoras hispanas: estrategias narrativas, género y tradición A study of representative Spanish and Latin American women focusing on the presence of the female voice in the use and manipulation of narrative strategies. The readings unveil the tensions in the discourse as each writer negotiates with traditions and attempts to generate a mode of writing that more adequately conveys her creative process and women's changing roles in society. Prerequisite: Spanish 110 or 120 or placement. (Green, Division III) *Not offered in 1996-97.*

270. The Picaresque in Spain and Beyond A study of the origins, development, and transformation of the picaresque novel in Spain and other literatures from Spain, Mexico, England, Germany, the United States, and Brazil. Topics include: the construction of the (fictional) self; religious, secular, and satiric confessional rhetoric; and the feminine variations of the picaresque. (Quintero, Division III)

303. Historias para una dictadura: la novela en la España de Franco A study of the novel in Franco's Spain (1939-1975). The course focuses on the way in which the novel as a narrative form evolved around and affected the countercultural discourses produced by the opposition in the struggle against official culture. Topics include: an examination of

the narrative voices and spaces constructed by the novel; the repositioning of the reader in the discursive intersection of politics, nationalism, sexuality, genre, and personal identity; the changes undergone by the novel as the culture of the dictatorship collapsed. Authors include: Cela, Laforet, Martín-Gaité, Martínez-Santos, J. Goytisolo, Ayala, Montero, Saizarvitoria. (Gabilondo, Division III)

307. Cervantes A study of themes, structure, and style of Cervantes' masterpiece *Don Quijote*, and its impact on world literature. In addition to a close reading of the text and a consideration of narrative theory, the course examines the impact of *Don Quijote* on the visual arts, music, film, and popular culture. (Quintero, Division III)

308. Spanish Drama of the Golden Age A study of the dramatic theory and practice of sixteenth and seventeenth-century Spain. Topics include the treatment of honor, historical self-fashioning, and the politics of the *corral* and palace theater. (Quintero, Division III) *Not offered in 1996-97.*

309. La representación de la mujer en la literatura española del Siglo de Oro A study of the depiction of women in the poetry, drama, and prose of sixteenth- and seventeenth-century Spain. Topics include the idealization and codification of women in the lyric poetry of Garcilaso and Herrera, the apparent feminine subversion of societal expectations in Lope's and Calderón's *comedias*, and the presentation of strong female characters in the *novelas ejemplares* written by Cervantes and María de Zayas. (Quintero, Division III) *Not offered in 1996-97.*

323. Colonialismo y fin de siglo en la literatura modernista A study of the new national and subjective identities that emerge from the Spanish loss of its last two colonies, Puerto Rico and Cuba, in both Spanish and Latin American literature at the end of the nineteenth century. The course centers on the ways in which the marginality of writers and characters (gender, geography, and social class) is key to the construction of modernist identities (the gendering of the nation as motherland, the *femme fatale*, the rise of the figure of the intellectual, the bohemian, the dandy). Readings from essays, drama, novels, and poetry; authors include Martí, Darío, Unamuno, Baroja, Valle-Inclán, Machado. (Gabilondo, Division III) *Not offered in 1996-97.*

335. Amantes, místicos, misóginos y cultos: la poesía de los siglos de oro en España A study of the poetry and poetics of sixteenth and seventeenth century Spain, from the oral tradition of the *romances* to the *culterano* poetry of the Baroque. Topics include orality and writing, poetic self-fashioning, the love lyric, religious and profane poetry. (Quintero, Division III) *Not offered in 1996-97.*

340. Representation of Gender and Power in Habsburg Spain An examination of the relationship between art and literature in 16th- and 17th-century Spain. Topics include: reading visual and verbal texts, theories of representation, the portrayal of women, depictions of sacred and profane love, mysticism, self reference, theater and painting in the court, the spectacle of power and monarchy. Prerequisite: One history of art course, or, for Spanish majors, one 200-level Spanish course. Course is taught in English. Students wishing major credit in Spanish must do

Spanish

appropriate assignments in Spanish. (McKim-Smith, Quintero, Division III; cross listed with History of Art 340) *Not offered in 1996-1997*

350. El cuento hispanoamericano The study of short fiction in Spanish America with special attention to the fantastic. Authors include Quiroga, Borges, Carpentier, Rulfo, Cortázar, and Valenzuela. (Sacerio-Garí, Division III) *Not offered in 1996-97.*

351. Tradición y revolución: Cuba y su literatura An examination of Cuba, its history, and its literature, with emphasis on the analysis of the changing cultural policies since 1959. An important component is the tracing of major topics beginning with the colonial period: impact on prehispanic culture, slavery and resistance, Cuba's struggles for freedom, literature in exile. (Sacerio-Garí, Division III)

399. Senior Essay Individual conferences between students and the instructor in the preparation of a senior project. At the end of the semester there will be an oral examination based on the essay. (staff)

403. Supervised Work Independent reading, conferences, and a long paper; offered to senior students recommended by the department. (staff)

Courses which may be offered by current faculty as student interest and circumstances permit:

211. Borges and the Reader (Sacerio-Garí, Division III)

305. Modern Poetry in Spain (staff, Division III)

Haverford offers the following courses in Spanish:

205a. Studies in the Spanish-American Novel

210b. Spanish Film Studies

220b. Spanish-American Contemporary Literature

235a. Spanish American Theater

248b. Poets and Politics in Spain

313b. Literature of the Caribbean

334b. Gender Dissidence in Hispanic Writing

340a. The Moor in Spanish Literature

380b. Just Wars and Utopias: The Indians, National Identity and Ideology in Spanish America

385a. Popular Culture, Cultural Identity, and the Arts in Latin America



FIELDS OF CONCENTRATION AND ADDITIONAL PROGRAMS

AFRICANA STUDIES

Coordinators:

Paul Jefferson, Ph.D., *Associate Professor of History*, at Haverford College

Mary J. Osirim, Ph.D., *Associate Professor of Sociology*, at Bryn Mawr College

Affiliated Faculty:

Linda-Susan Beard, *Associate Professor of English*, at Bryn Mawr College

Kimberly Benston, Ph.D., *Professor of English*, at Haverford College

Barbara Cooper, *Visiting Assistant Professor of History*,
at Bryn Mawr College

Harvey Glickman, Ph.D., *Professor of Political Science*,
at Haverford College

Thomas Jackson, Ph.D., *Professor Emeritus of English*, at Bryn Mawr College

Philip Kilbride, Ph.D., *Professor of Anthropology*, at Bryn Mawr College

Wyatt MacGaffey, Ph.D., *John R. Coleman Professor of Social Sciences*,
at Haverford College

Robert Mortimer, Ph.D., *Professor of Political Science*,
at Haverford College

Lucius Outlaw, Ph.D., *Professor of Philosophy*, at Haverford College

Robert Washington, Ph.D., *Professor of Sociology*, at Bryn Mawr College

Michael Allen, Ph.D., *Associate Professor of Political Science*,
at Bryn Mawr College

Vernon Dixon, Ph.D., *Associate Professor of Economics*,
at Haverford College

Paul Jefferson, Ph.D., *Associate Professor of History*,
at Haverford College

Emma Lapsansky, Ph.D., *Associate Professor of History*,
at Haverford College

Koffi Anyinefa, Ph.D., *Assistant Professor of French*,
at Haverford College

Rajeswari Mohan, Ph.D., *Assistant Professor of English*,
at Haverford College

Africana studies is a developing synthetic field that brings a global frame of reference and a variety of disciplinary perspectives to the study of Africa and the African diaspora. Drawing on the methods of anthropology, economics, history, literature studies and linguistics, music, philosophy, political science, and sociology, the field also encompasses the study of decolonization and the processes of modernization and development against a background of international economic change,

both in Africa and in societies worldwide with populations of African origin.

Africana studies is a bi-college program, supported jointly by faculty at both Bryn Mawr and Haverford Colleges. Haverford offers Africana studies as an area of concentration anchored in the student's major with additional courses taken in at least two other departments. Bryn Mawr offers Africana studies as a minor which the student can combine with any major.

Both Bryn Mawr's minor and Haverford's concentration introduce students to theoretical perspectives and empirical studies of Africa and the African diaspora. In designing an intellectually coherent program, students are advised to organize their course work along one of several prototypical routes. Such model programs might feature: (1) regional or area studies; for example, focusing on Brazil, the English-speaking Caribbean or North America; (2) thematic studies; for example, exploring decolonization, class politics and/or economic development in West and East Africa; (3) comparative studies; for example, reconstructing the forms and functions of slavery both in Africa and in Catholic and Protestant societies in the diaspora.

The requirements for Africana studies are the following: (1) students take six semester courses from an approved list of courses in Africana studies; (2) students take a one-semester interdisciplinary core seminar as one of these courses; and (3) students write a senior thesis or seminar-length essay in an area of Africana studies.

In addition to satisfying the above requirements, students concentrating in Africana studies at Haverford must also satisfy a distribution requirement. Of the six courses that they take in Africana studies, at least two but no more than three must be in their home department and the remaining three to four courses must be taken in at least two other departments.

Students will be encouraged to enter this program by taking one of two courses: (1) Bryn Mawr College Anthropology/Sociology 211: African American Culture and Community; or (2) Haverford College Political Science 236b: African Politics. Each of these courses provides a foundation and a frame of reference for students continuing in Africana studies. This introductory-level work will be followed by the core seminar providing each group of students with a common intellectual experience. The final requirement for the program is a senior thesis or its equivalent. If the student is majoring in a department which requires a thesis, she satisfies the requirement by writing on a topic approved by her department and by the coordinator/committee on Africana studies. If the major department does not require a thesis, an equivalent written exercise—that is, a seminar-length essay—is required. The essay may be written within the framework of a particular course or as an independent study project. The topic must be approved by the instructor in question and by the coordinator/committee on Africana studies.

Africana studies courses at Bryn Mawr include:

Anthropology/Sociology 211. African American Culture and Community

Anthropology 253. Childhood in the African Experience

Anthropology/City 257. African Ethnology: Urban Problems

Anthropology 341. Cultural Perspectives in Sexuality, Marriage, and the Family
Economics 314. Economics of Poverty and Discrimination
English 262. African American Literature
English 263. Toni Morrison and the Art of Narrative Conjure
English 279. Modern African Fiction
English 381. Literature of Apartheid
General Studies 101. Introduction to African Studies
General Studies 103. Introduction to Swahili Language and Culture I and II
General Studies 299. Emancipation, Decolonization, and Social Reconstruction: Africa and the Americas in the Modern Era
History 236. Introduction to African History
History 237. Themes in Modern African History
History 337. Topics in African History: Family, Community, and Historical Perspectives
History 338. Topics in African History: Women in African History
Political Science 243. African/Caribbean Perspectives in World Politics
Sociology 217. The Family in Social Context
Sociology 218. Modernization: Problems of Development in Third World Societies
Sociology 225. Women in Contemporary Society: Third World Women
Sociology 245. Urban Social Problems
Sociology 312. East African Social, Political, and Cultural Development
Sociology 330. Comparative Economic Sociology: Advanced and Third World Societies

Africana studies courses at Haverford include:

Anthropology 205b. Social Anthropology
Anthropology 242a. Bantu Language and Culture
Biology/Economics 226. Agricultural Biotechnology in Developing Economies
Comparative Literature/English 347a. Gender and Race in the Long Eighteenth Century
Comparative Literature/French 250. Introduction à la littérature d'Afrique et des Caraïbes
Comparative Literature/French 212. Advanced Topics: Littérature francophone d'Afrique noire: histoire et grands thèmes
Economics 215a. Urban Economics
Economics 227b. Economic Policy Reform in Developing Countries
Economics 228b. Economics of the United States' Third World Peoples
English 270b. Portraits in Black
English 271b. Race: Writing and Difference in American Literature
English 277a. Post-Colonial Women Writers
English 282b. Fictions of Empire
English 361a. Afro-American Literature
English 369a. Topics in American Literature: Black Women's Literature
General Programs 101a. Introduction to African Studies
General Programs 299a. Emancipation, Decolonization, and Social Reconstruction: Africa and the Americas in Modern Era
History 243a. African American Political and Social Thought
History 343a. Topics in American Intellectual History
History 343b. Topics in Afro-American Intellectual History
Music 227a. Jazz and the Politics of Culture

Philosophy 232b. African American Philosophy
Philosophy 245a. African Philosophy
Political Science 123b. Politics of Difference and Discrimination
Political Science 227a. Urban Politics
Political Science 228. Race and Politics
Political Science 236b. African Politics: Africa in U.S. Policy
Political Science 328a. Difference and Discrimination: The Politics of
Race, Gender, and Sexual Orientation
Sociology 235b. Class, Race, and Education
Spanish 340a. The Moor in Spanish Literature

ARTS PROGRAM

Senior Lecturers:

Michael Isador, A.B., *Alice Carter Dickerman Director of the Arts*
Linda Caruso Haviland, Ed.D., *Director of Dance*
Mark Lord, M.F.A., *Director of Theater*

Associate Lecturers:

Ava Blitz, M.F.A., *Fine Arts* (on leave, 1996-97)
Madeline Cantor, M.F.A., *Dance*
Hiroshi Iwasaki, M.F.A., *Designer and Technical Director of Theater*

Lecturers:

Margaret Holley, Ph.D., *Director of Creative Writing*
Quinn Eli, M.A., *Creative Writing*
Rachel Simon, M.F.A., *Creative Writing*

Courses in the arts are designed to prepare students who might wish to pursue advanced training in their fields and for those who want to broaden their academic studies with work in the arts that is conducted at a serious and disciplined level.

CREATIVE WRITING

Courses offered in creative writing within the Arts Program are designed to teach technique and form from a professional point of view. These workshops are designed both for students intending to make their careers in writing and for those who wish to enlarge their appreciation of the writing arts. Students have majored in creative writing through the independent major program. (See page 55.)

260. Writing Short Fiction: Exploring Content and Style This course uses writing exercises, class discussion of classic and contemporary literature and the elements of process, and private conferences to provide guidance for each student's unique exploration of content and style. Requirements include production of three or more stories, revision of one or more stories, and class participation. (Simon, Division III)

261. Writing Poetry: Introduction to Contemporary Styles This course encourages the student to experiment with a broad spectrum of contemporary poetic strategies, both mainstream and avant-garde. Weekly writing assignments and discussion of modern and postmodern poems enable the class to focus on such approaches as free-verse dynamics and neo-formalism, open-field, deep image, surrealist, and sequence poetry. The goal is to enlarge each student's repertoire of skills and choices in composing poems. (Holley, Division III)

262. Beginning Playwriting (Lord, Division III; cross listed as Theater 262) *Not offered in 1996-97.*

263. Creative Nonfiction This course takes as its premise the idea that a good "reporter," like a good creative writer, can be imaginative and artistic in technique and approach. Students showcase—or "frame"—fact in a creative context. Research, interviews, and field work are as much a part of this process as meditation and creativity. Students also complete one or two nonfiction pieces of considerable length and a number of shorter exercises in literary prose. (Eli, Division III)

264. Feature Journalism A consideration of the way feature journalism contributes to the construction of social reality. For any prominent news event, a battalion of reporters, anchorpeople, and "expert" opinion-makers offer instant analyses, creating a narrative "plot" out of the story's raw materials. Selected photography is then used to illustrate the plot, and brief quotes or sound "bytes" provide the soundtrack. Like any other narrative form directed at a large audience, feature journalism has the power to shape the public's conceptions of race and gender and to mediate the public's racial and social attitudes. While working on several short documented features and one or two major articles during the semester, students in this class will consider their own role as journalists in the construction of social reality. (Eli, Division III)

360. Advanced Fiction Writing A consideration of the way feature journalism contributes to the construction of social reality. While working on several short documented features and one or two major articles, students explore their own role as journalists. (Eli)

361. Writing Poetry: Craft and the Creative Process Students who take this course have some experience in writing poetry and want to develop their skills further. Class meetings include writing exercises, consideration of work by traditional and contemporary poets, discussion of student's poems in a supportive environment, and exploration of elements of the creative process. Craft exercises alternating with independent "self-assignments" offer structured challenges along with the freedom to pursue subjects and styles that express each student's individual vision. (Holley)

362. Advanced Playwriting (Lord; cross listed as Theater 362)

363. Experimental Writing An exploration of a variety of experimental forms and hybrid inventions in poetry, fiction, and playwriting including found poems, prose poetry, visual poems, "flash fiction," "faction" or fiction interwoven with fact, experimental drama, and the performance text. Assignments involve writing that tests the assumptions of tradi-

tional genres and raises such issues as the permeable boundaries of poetry and prose, the relations of affect and fiction, the tension of text and voice, realism, and surrealism. Prerequisite: prior course in creative writing or permission of the instructor. (Holley)

403. Supervised Work (staff)

Haverford College offers the following courses in creative writing:

English 191b. Poetry Writing

English 192a. Fiction Writing

DANCE

The dance program provides courses which enable students to experience and understand dance both as an art and a humanity, and provides varied opportunities in technique, theory, and performance for students at all levels of skill, interest, and commitment. A full range of classes in modern, ballet, jazz technique, and African dance are offered regularly, and more specialized movement forms, such as Classical Indian or Flamenco, are offered on a rotating basis. To supplement the academic courses in performance, composition, and theory, guest lecturers have taught courses that present a perspective extending beyond the Western dance theater tradition.

Requirements for the dance minor are six units of coursework, three required (Arts Program 140, 142, 343/4 or 345), and three elective. Students may choose to emphasize one aspect of the field, but must first consult with the dance faculty regarding their course of study.

140. Approaches to Dance: Themes and Perspectives An introduction to the significance and the potential of the creative, critical, and conceptual processes of dance as a performance art and a humanity. This course reviews the fields of dance history, criticism, philosophy, and ethnology. The course includes lectures, discussion, film, video, and guest lecturers. (Caruso Haviland, Division III)

142. Dance Composition I Analysis and practice of the basic elements of dance making, with reference to both traditional and post-modern choreographic approaches. This course presents compositional theory and experience in generating dance material and in structuring movement forms beginning with simple solo phrases and progressing to more complex organizational units. (staff, Division III)

240. Dance History I: Roots of Western Theater Dance The study of the history of pre-twentieth century dance with particular emphasis on the development of dance as a theater art form within the broader context of Western art and culture. (Caruso Haviland, Division III) *Not offered in 1996-97.*

241. Dance History II: A History of Twentieth-century Dance The study of the development of contemporary forms of dance with emphasis on theater forms within the broader context of Western art and culture. Both history courses include lecture, discussion, and audio-visual materials. (Caruso Haviland, Division III) *Not offered in 1996-97.*

Arts Program

242. Dance Composition II A continuation of Dance Composition I with emphasis on the construction of finished choreography for solo dances and the means of developing group composition. Related production problems are considered. (staff, Division III)

342. Advanced Choreography Independent study in choreography under the guidance of the instructor. Students are expected to produce one major choreographic work and are responsible for all production considerations. (staff)

343, 344. Advanced Dance Technique For description see Dance Technique. (staff)

345. Dance Ensemble For description see Dance Performance. (staff)

403. Supervised Work Research in a particular topic of dance under the guidance of an instructor, resulting in a significant final paper or project. (staff)

Dance Technique

Three levels of ballet and modern dance are offered each semester. Contact improvisation, African-Caribbean technique, and jazz are offered each year. Courses in techniques developed from other cultural forms or from non-Western perspectives, such as hip-hop, classical Indian dance, or flamenco, are offered on a rotating basis. All technique courses are offered for Physical Education credit but students may choose to register in advanced level courses for academic credit.

Dance Performance

The *Dance Ensembles* (modern, ballet, and jazz) are designed to offer students significant opportunities to develop dance technique, particularly in relationship to dance as a performance art. Original works choreographed by faculty or guest choreographers or reconstructed pieces are rehearsed and performed. This course, which is open to intermediate and advanced level dancers by audition or permission of instructor, may in some cases be taken for elective academic credit or for physical education credit. Students who elect to participate in Dance Outreach, a dance performance/education program which tours Philadelphia and suburban schools and community groups, can receive Physical Education credit.

FINE ARTS

Fine Arts at Bryn Mawr is part of the Fine Arts Department at Haverford College. The Fine Arts Program at Bryn Mawr is coordinated with and complementary to the Fine Arts Program at Haverford College (see page 124); courses on either campus are offered to students of either college with the approval of the respective instructors. Prospective Fine Arts majors and minors should plan their curricula with the major instructor. Throughout their progression through the fine arts courses, these students should strive to develop a portfolio of artwork showing strength and competence and a sense of original vision and personal direction appropriate for a major or minor candidate.

Bryn Mawr College

For major program requirements and course descriptions, see Fine Arts at Haverford College (page 124).

MUSIC

The Music Department is located at Haverford and offers all students a music major and Bryn Mawr students a music minor. For a list of requirements and courses offered, see Music at Haverford (page 173).

Performance

The following organizations are open to all students by audition. For information about academic credit for these groups, and for private vocal or instrumental instruction, see Music at Haverford (page 173).

The *Haverford-Bryn Mawr Orchestra* rehearses twice a week, and concerts are given regularly on both campuses. The annual concerto competition affords one or more students the opportunity to perform with the orchestra in a solo capacity.

The *Haverford-Bryn Mawr Chamber Singers* is a select ensemble which demands a high level of vocal ability and musicianship. The group performs regularly on both campuses and in the Philadelphia area. Tours are planned within the United States and abroad.

The *Haverford-Bryn Mawr Chorale* is a large auditioned chorus which gives concerts with the Haverford-Bryn Mawr Orchestra each year. Recent repertory has included: Faure's *Requiem*, Carl Orff's *Carmina Burana*, and Mozart's *Requiem*.

The *Haverford-Bryn Mawr Women's Ensemble* emphasizes music for women's voices and trebles and performs several times in the academic year.

Ensemble Groups are formed within the context of the Chamber Music Seminar (Music 215). See Music at Haverford (page 173).

The *Bryn Mawr Chamber Music Society*, run by the Office for the Arts, offers extracurricular opportunities for experienced students, faculty, and staff to perform a variety of chamber works in a series of concerts held in the Music Room.

THEATER

The curricular portion of the Bryn Mawr and Haverford Colleges' theater program focuses upon the point of contact between creative and analytic work. Courses combine theory (reading and discussion of dramatic literature, history, and criticism) and praxis (creative exercises, scene study, and performance) to provide viable theater training within a liberal arts context.

Requirements for the minor in Theater Studies are six units of course work, three required (Arts Program 150, 251, and 252) and three elective. Students must consult with the theater faculty to ensure that the necessary areas in the field are covered. Students have majored in theater through the independent major program. (See page 55.)

150. Introduction to Theater An exploration of a wide range of dramatic works and history of theater through research, analysis and discussion to develop understanding and foundations for a theatrical production. (Iwasaki, Division III)

250. Twentieth-century Theories of Acting An introduction to twentieth-century theories of acting emphasizing the intellectual, aesthetic, and sociopolitical factors surrounding the emergence of each director's approach to the study of human behavior on stage. Various theoretical approaches to the task of developing a role are applied in workshop and scene study. (Lord, Division III) *Not offered in 1996-97.*

251. Fundamentals of Acting An introduction to the fundamental elements of acting (scene analysis, characterization, improvisation, vocal and gestural presentation, and ensemble work) through the study of scenes from significant twentieth-century dramatic literature. (Lord, Division III)

252. Fundamentals of Technical Theater A practical, hands-on workshop in the creative process of turning a concept into a tangible, workable end through the physical execution of a design. Exploring new and traditional methods of achieving a coherent synthesis of all areas of technical production. (Iwasaki, Division III)

253. Performance Ensemble An intensive workshop in the methodologies and aesthetics of theater performance, this course is open to students with significant experience in performance. In collaboration with the director of theater, students will explore a range of performance techniques and styles in the context of rehearsing a performance project. Admission to the class is by audition or permission of the instructor. The class is offered for a half unit of credit and students taking it for credit need to demonstrate their ability by first taking the course for no credit or by taking another academic class in performance. (Lord, Division III)

254. Fundamentals of Theater Design An introduction to the creative process of visual design for theater; exploring dramatic context and influence of cultural, social, and ideological forces on theater and examining practical applications of various technical elements such as scenery, costume, and lighting while emphasizing their aesthetic integration. (Iwasaki, Division III)

255. Fundamentals of Costume Design Hands-on practical workshop on costume design for performing arts; analysis of text, characters, movement, situations; historical and stylistic research; cultivation of initial concept through materialization and plotting to execution of design. (Iwasaki, Division III) *Not offered in 1996-97.*

262. Beginning Playwriting An introduction to the theater by study of the one-act play and its production. Written work consists of two one-act plays and a notebook of critical comments. (Lord, Division III; cross listed as Creative Writing 262)

351. Acting II: Solo Performance Building on the methods learned in Fundamentals of Acting with an emphasis on strategies of preparing short solo performances. In addition to intensive exercises in naturalistic and anti-naturalistic performance techniques, the course provides opportunities for exploration of principles of design, directing, dramaturgy, and playwriting as they pertain to specific projects conceived by

members of the class. Prerequisite: Permission of the instructor. (Lord)
Not offered in 1996-97.

354. Shakespeare on the Stage: 1590 to the Present An exploration of Shakespeare's texts from the point of view of the performer. A historical survey of the various approaches to producing Shakespeare from Elizabethan to contemporary times, with intensive scenework culminating in on-campus performances. (Lord)

359. Directing for the Stage A semiotic approach to the basic concepts, and methods of stage direction. Topics explored through readings, discussion, and creative exercises include directorial concept, script analysis and research, stage composition and movement, and casting and actor coaching. Students rehearse and present three major scenes. (Lord)
Not offered in 1996-97.

403. Supervised Work (staff)

Performance

A variety of opportunities to act and assist in technical theater are available in the two College community. Students can participate in the theater program's two mainstage productions, in the Student Theater Company's festivals of one-acts, and in the annual student directed full-length play or musical. Student-written plays are regularly presented in full stage productions or informal readings. All auditions are open and casting is frequently blind to race and sex.

The following courses in dramatic literature are offered. For course descriptions, see the relevant department:

English 221. English Drama to 1642

English 225. Shakespeare

English 326. Theaters of Ben Jonson

English 382: Theater and Society

French 311. Le Théâtre du Vingtème Siècle

Greek 202. The Form of Tragedy

Italian 203. Italian Theater

Spanish 308. Spanish Drama of the Golden Age

COMPUTER SCIENCE

Coordinators:

Deepak Kumar, Ph.D., *Assistant Professor of Computer Science*, at Bryn Mawr College

Steven Lindell, Ph.D., *Associate Professor of Computer Science*, at Haverford College

Affiliated Faculty:

Neal B. Abraham, Ph.D., *Rachel C. Hale Professor in the Sciences and Mathematics and Professor of Physics*, at Bryn Mawr College

Alfonso M. Albano, Ph.D., *Marion Reilly Professor of Physics*, at Bryn Mawr College

Computer Science

Peter A. Beckmann, Ph.D., *Professor of Physics*, at Bryn Mawr College
Danielle Carr, Ph.D., *Assistant Professor of Mathematics*, at Bryn Mawr College

William Davidon, Ph.D., *Professor Emeritus of Mathematics*, at Haverford College

Victor Donnay, Ph.D., *Associate Professor of Mathematics*, at Bryn Mawr College

Michelle M. Franci, Ph.D., *Associate Professor of Chemistry*, at Bryn Mawr College

Curtis Greene, Ph.D., *Professor of Mathematics*, at Haverford College

Paul Grobstein, Ph.D., *Eleanor A. Bliss Professor of Biology*, at Bryn Mawr College

Lyle Roelofs, Ph.D., *Professor of Physics*, at Haverford College

Jeffrey Tecosky-Feldman, M.A., *Assistant Professor of Mathematics*, at Haverford College

George E. Weaver, Jr., Ph.D., *Professor of Philosophy*, at Bryn Mawr College

David G. Wonnacott, Ph.D., *Assistant Professor of Computer Science*, at Haverford College

Computer science studies methods of solving problems and processes which manipulate and transform information. It is the science of algorithms—their theory, analysis, design and implementation. As such, it is an interdisciplinary field with roots in mathematics and engineering and applications in many other academic disciplines.

Computer science is a two-college program, supported jointly by faculty at both Bryn Mawr and Haverford Colleges. Bryn Mawr offers computer science as a minor which can be combined with any major, depending on the student's preparation. Haverford offers computer science as an area of concentration, anchored in the Departments of Mathematics and Physics. Additionally, it is possible for students to declare an independent major in computer science. The computer science program also strives to facilitate evolving interdisciplinary independent majors. For example, students can major in cognitive science by combining relevant course work from computer science and disciplines like psychology and philosophy.

Both Bryn Mawr's minor and Haverford's concentration emphasize foundations and basic principles of information science, rather than engineering or data-processing applications. Both Colleges believe this approach to be the most consistent with the principles of scientific education in the liberal arts. The aim is to provide students with skills which transcend short-term fashions and fluctuations in computer hardware and software. Some of these skills are mathematical, while others come from the rapidly growing and maturing field of computer science itself.

The computer science program introduces students to both the theoretical and practical aspects of computer science through a core sequence of four courses, designed to be taken in the sophomore and junior years: Computer Science 240: Principles of Computer Organization, Computer Science 245: Principles of Programming Languages, Computer Science 340: Analysis of Algorithms, and Computer Science 345: Theory of Computation. These are normally preceded by an introductory sequence of two courses (Computer Science 110 and 206) and by a course in discrete mathematics (Mathematics 231). Additional

electives and advanced topics courses build on material developed in the four core courses.

The requirements for a minor in computer science at Bryn Mawr are Computer Science 110 or 105; Computer Science 206; Mathematics 231; two of the five courses (Computer Science 240, 245, 246, 340, and 345); and two electives chosen from any course in computer science at Bryn Mawr or Haverford, approved by the student's coordinator in computer science. As mentioned above, these requirements can be combined with any other major, depending on the student's interests and preparation. Students desiring to declare independent majors in computer science or related fields should work in close cooperation with their coordinator in computer science.

The requirements for the concentration at Haverford may be combined with existing mathematics and physics major requirements. Interested students should consult with the faculty coordinators listed above to develop an appropriate course schedule.

Bryn Mawr's World Wide Web home page can be accessed on the Internet at www.brynmawr.edu.

100b. The World of Computers An introduction to the use of the computer for problem solving in any discipline, including an introduction to programming in a structured language (currently Pascal) with emphasis on the development of general problem-solving skills and logical analysis. Applications are chosen from a variety of areas, emphasizing the non-technical. (Tecosky-Feldman, Division II, Quantitative Skills)

105a. Introduction to Computer Science Introduction to programming (in Pascal) for students interested in doing more advanced work in computer science and other technical and scientific fields. Additional topics in computer science and discrete mathematics are introduced through programming exercises. (Wonnacott, Division II, Quantitative Skills)

110. Introduction to Computer Science An introduction to the nature, subject matter, and branches of computer science as an academic discipline, and the nature, development, coding, testing, documenting, and analysis of the efficiency and limitations of algorithms. Also includes the social context of computing (risks, liabilities, intellectual property, and infringement). (staff, Division II, Quantitative Skills)

206. Introduction to Data Structures Introduction to the fundamental algorithms and data structures of computer science: sorting, searching, recursion, backtrack search; lists, stacks, queues, trees, graphs, dictionaries. Introduction to the analysis of algorithms. Prerequisite: Computer Science 105 or 110, or permission of instructor. (Kumar, Division II, Quantitative Skills)

210b. Linear Optimization and Game Theory Covers in depth the mathematics of optimization problems with a finite number of variables subject to constraints. Applications of linear programming to the theory of matrix games and network flows are covered, as well as an introduction to nonlinear programming. Emphasis is on the structure of optimal solutions, algorithms to find them, and the underlying theory that

explains both. (Butler, Division II, Quantitative Skills) *Not offered in 1996-97.*

212a. Computer Graphics Presents the fundamental principles of computer graphics: data structures for representing objects to be viewed, and algorithms for generating images from representations. Prerequisite: Mathematics 203 or 215, or permission of the instructor. (Wonnacott)

231b. Discrete Mathematics An introduction to discrete mathematics with strong applications to computer science. Topics include set theory, functions and relations, propositional logic, proof techniques, recursion, counting techniques, difference equations, graphs and trees. (Tecosky-Feldman, Division II, Quantitative Skills; cross listed as Mathematics 231)

240a. Principles of Computer Organization A lecture/laboratory course studying the hierarchical design of modern digital computers. Combinatorial and sequential logic elements; construction of microprocessors; instruction sets; assembly language programming. Lectures cover the theoretical aspects of machine architecture. In the laboratory, designs discussed in lecture are constructed in software. Prerequisite: Computer Science 206, or permission of instructor. (Lindell, Division II, Quantitative Skills)

245. Principles of Programming Languages An introduction to a wide range of topics relating to programming languages with an emphasis on abstraction and design. Design issues relevant to the implementation of programming languages are discussed, including a review and in-depth treatment of mechanisms for sequence control, the run-time structure of programming languages, and programming in the large. The course has a strong lab component where students get to construct large programs in at least three different imperative programming languages. (staff, Division II, Quantitative Skills)

246. Programming Paradigms An introduction to the non-procedural programming paradigms. The shortfalls of procedural programming derived from the von Neumann model of computer architectures are discussed. An in-depth study of the principles underlying functional programming, logic programming, and object-oriented programming. This course has a strong lab component where students get to construct programs in several programming languages representative of the paradigms. Prerequisite: Computer Science 105 or 110. (Kumar, Division II, Quantitative Skills) *Not offered in 1996-97.*

320. Numerical Analysis Introduction to computer-based analysis with applications in various fields. Topics include linear and nonlinear systems, eigenvalue problems, interpolation, numerical integration and differentiation, solution of differential and integral equations. Prerequisite: Mathematics 102 at Bryn Mawr or Mathematics 114 at Haverford. (Roelofs) *Not offered in 1996-97.*

340b. Analysis of Algorithms Qualitative and quantitative analysis of algorithms and their corresponding data structures from a precise mathematical point of view. Performance bounds, asymptotic and

probabilistic analysis, worst case and average case behavior. Correctness and complexity. Particular classes of algorithms such as sorting and searching are studied in detail. Prerequisite: Computer Science 206 and some additional mathematics at the 200 level, or permission of instructor. (Lindell)

345a. Theory of Computation Introduction to automata theory, formal languages, and complexity. Introduction to the mathematical foundations of computer science: finite state automata, formal languages and grammars, Turing machines, computability, unsolvability, and computational complexity. Prerequisites: Computer Science 190, 206, and some additional mathematics at the 200 level, or permission of instructor. (Lindell) *Not offered in 1996-97.*

350b. Compiler Design: Theory and Practice An introduction to compiler and interpreter design, with emphasis on practical solutions using compiler-writing tools in UNIX, and the C programming language. Topics covered include: lexical scanners, context-free languages and pushdown automata, symbol table design, run-time memory allocation, machine language, and optimization. (Wonnacott) *Not offered in 1996-97.*

355b. Operating Systems: Theory and Practice A practical introduction to modern operating systems, using case studies from UNIX, VMS, MSDOS, and the Macintosh. Lab sessions will explore the implementation of abstract concepts, such as resource allocation and deadlock. Topics covered include: file systems, memory allocation schemes, semaphores and critical sections, device drivers, multiprocessing, and resource sharing. (Wonnacott)

372. Introduction to Artificial Intelligence Survey of Artificial Intelligence (AI) the study of how to program computers to behave in ways normally attributed to "intelligence" when observed in humans. Topics include: heuristic vs. algorithmic programming; cognitive simulation vs. machine intelligence; problem solving; inference; natural language understanding; scene analysis; learning; decision making. Topics are illustrated by programs from literature and programming projects in appropriate languages. (Kumar)

394b. Advanced Topics in Discrete Mathematics and Computer Science (Lindell) *Not offered in 1996-97.*

In addition to the courses listed above, the following courses are also of interest:

Biology 367. Computational Models of Biological Organization
General Studies 213. Introduction to Mathematical Logic
General Studies 303. Advanced Mathematical Logic
Mathematics 329. Elements of Mathematical Biology
Philosophy 242. Theory of Recursion
Physics 305. Advanced Electronics Lab
Physics 306. Mathematical Methods in the Physical Sciences
Physics 316. Electronic Instrumentation and Computers
Physics 322b. Solid State Physics

EDUCATION

Director and Lecturer in Education:
Alison Cook-Sather, Ph.D.

Program Administrator/Adviser:
Marjorie Merklin, M.A.T.

Lecturer:
Pata Suyemoto, Ph.D. (expected 1996)

Education is an interdisciplinary area of study, drawing on the fields of philosophy, sociology, linguistics, psychology, history, economics, and public policy. Education courses invite recognition and analysis of the dialectic between theory and practice and of the connections between what we learn, why we learn, how we learn, and how all learning fits into larger philosophical, psychological, historical, and socioeconomic patterns.

The Bryn Mawr/Haverford Education Program offers three options to students interested in education: students may (1) complete a sequence of courses leading to state certification in Pennsylvania, (2) pursue a minor at Bryn Mawr, or (3) take courses which are open to all interested students. The certification sequence and the minor are explained below.

Students seeking certification or wishing to complete a minor should meet with the program administrator as early as possible for advice on scheduling. Once enrolled in either program, students must meet with the Program Administrator at course selection time each semester.

CERTIFICATION

The Bryn Mawr/Haverford Education Program is accredited by the state of Pennsylvania to prepare candidates for junior and senior high school certification (grades 7-12) in twelve fields: Mathematics, Biology, Chemistry, Physics, Chinese, English, French, German, Latin, Russian, and Spanish. Certification in the field of Social Studies is available for students majoring in History, Political Science, Sociology, Anthropology, and Economics. Students becoming certified in a language have K-12 certification. Certain interdisciplinary majors and double majors (e.g., Romance Languages, Comparative Literature, East Asian Studies) may also be eligible for certification provided they meet the Pennsylvania standards in one of the subject areas listed above.

To qualify for a teaching certificate, students must complete an academic major (listed above), college general education requirements, and the courses listed below:

- 1.) Education 103 (Introduction to Education).
- 2.) Psychology 203 (Educational Psychology).
- 3.) Psychology 206 (Developmental Psychology) or Psychology 214 at Haverford (Psychology of Adolescence), or General Programs 283 (Narratives of Adolescence).
- 4.) Education 301 (Curriculum and Methods).
- 5.) Education 302 (Practice Teaching Seminar) and Education 303 (Practice Teaching). These courses are taken concurrently and earn triple credit.

- 6.) One additional course from the following:
 - a.) Education 201 (Literacies and Education).
 - b.) Education 209 (Equity Issues in Education).
 - c.) Sociology 258 (Sociology of Education).
 - d.) Sociology 266 (Schools in American Cities)
 - e.) Psychology 206 (Developmental Psychology) or Psychology 214 at Haverford (Psychology of Adolescence), or General Programs 283 (Narratives of Adolescence).
 - f.) A subject-specific pedagogy course (e.g., at the University of Pennsylvania, one of the 400-level Association in Teaching courses in a major at Haverford, or an Independent Study which involves work as a teaching assistant in the subject area).
 - g.) Swarthmore College or University of Pennsylvania education electives.

Furthermore, in order to comply with the Pennsylvania certification regulations, there are courses within the academic major that are required for those becoming certified. Again, students should consult with the Program Administrator regarding course selection and sequencing.

Students preparing for certification must attain a grade point average of 2.5 or higher in courses in their major field during the two previous years and a grade of 2.7 or higher in Introduction to Education and the Curriculum and Methods Seminar in order to undertake Practice Teaching. They must also have received a positive evaluation from their cooperating teacher in Introduction to Education and be recommended by the director of the Education Program and the chairman of their major department.

Introduction to Education should be taken by the end of the sophomore year if at all possible. The Curriculum and Methods Seminar will be offered during the fall semester for seniors and must precede Practice Teaching.

Practice teaching is undertaken for twelve weeks in a local school during the spring semester of the senior year. Note: Practice teaching is a commitment to be at a school for five full school days each week for those twelve weeks.

In order to synthesize their work, students produce a portfolio. The portfolio — which draws on the work students produce in their courses as well as in their other activities (volunteering, community work, etc.) — does not earn course credit; rather, it serves as an ongoing forum through which students synthesize their studies.

THE MINOR

The following six courses fulfill the minor at Bryn Mawr:

- 1.) Education 103 (Introduction to Education)
- 2.) Psychology 203 (Educational Psychology or Developmental Psychology or Psychology of Adolescence or Narratives of Adolescence)
- 3.) Education 301 (Curriculum and Methods)
- 4.) Education 201 (Literacies and Education)
- 5.) One elective (e.g., Sociology of Education, Equity Issues in Education, or an approved class at Penn or Swarthmore)

- 6.) An Independent Study with a field placement in a school for approximately eight hours per week.

In order to synthesize their work, students produce a portfolio which includes pieces drawn from their courses as well as other sources (volunteering, summer programs, community service, etc.). This portfolio does not earn course credit; rather, it serves as an ongoing forum through which students synthesize their studies. It is developed over the course of the students' undergraduate years and completed in the Independent Study which serves as the culminating experience. For each artifact selected for the portfolio, students write a 1/2 to one page analysis of the significance of the piece of work. Students pursuing minors need to meet with the director of the program once per semester to discuss their progress.

103. Introduction to Education A survey of issues in education within an interdisciplinary framework. The course explores historical, institutional, and pedagogical issues such as tracking, theories of learning, race, class, and gender equity, and reform. Two hours per week of field work are required. The sections of Introduction to Education offered at Bryn Mawr College have a limited enrollment of 28 students with preference given to students in the certification program and to seniors considering careers in teaching. The section of Introduction to Education offered at Haverford College is open enrollment, but students must have a free block of time from 8:00-10:30 a.m. on Tuesday, Wednesday, or Thursday. All sections are writing intensive. (Cook-Sather, Suyemoto)

201a. Literacies and Education A critical exploration of what counts as literacy, who decides, and what the implications are for teaching and learning. Students explore both their own and others' experiences of literacy through reading and writing about power, privilege, access, and responsibility around issues of adult, ESL, cultural, multicultural, gendered, academic, and critical literacies. Enrollment limited to 25 (Writing Intensive) with preference given to students in the certification program or those completing the minor at Bryn Mawr or the concentration at Haverford. (Cook-Sather; cross listed as General Programs 201a)

209a. Equity Issues in Education An exploration of equity issues in education on societal, institutional, and classroom levels. We analyze formal and informal structures such as landmark legal decisions, state and local mandates, school curricula and cultures, and individual classroom dynamics. Within these structures we look at the ways that gender, class, race/culture, and disability shape student experiences of schooling in the United States. (Suyemoto)

301. Curriculum and Methods A consideration of theoretical and applied issues related to effective classroom instruction. Enrollment is limited to 15. Open to seniors planning to take Practice Teaching and seniors interested in careers in education. Field work is required. (Cook-Sather)

302. Practice Teaching Seminar Taken concurrently with Practice Teaching. Open only to student teachers. (Cook-Sather)

303. Practice Teaching Supervised teaching in secondary schools (12 weeks). Two units of credit are given for this course. (Suyemoto)

403. Supervised Work An Independent Study taken concurrently with the field placement for those students completing the minor. (Cook-Sather)

ENVIRONMENTAL SCIENCES

Director:

Mark Johnsson, Ph.D., *Assistant Professor of Geology*

The study of environmental sciences concerns interactions taking place at the Earth's surface—the site of intersection of the geosphere, hydrosphere, atmosphere, and biosphere, as well as our home as human beings. Accordingly, environmental studies are of necessity broadly multidisciplinary. Understanding of the Earth's responses to local and global perturbations requires that we focus our study on the interactions between inorganic, biologic and societal processes, not only in the present day, but through history and over geologic time as well. These interactions are best viewed as a dynamic, interlinked system. Understanding the structure of this system has become one of the most important long-term problems facing society in light of humankind's increasing capacity—and increasing eagerness—to alter the environment.

The Environmental Sciences Concentration at Bryn Mawr allows students to explore the interactions between the geosphere, biosphere, and human societies. The concentration, offered jointly by the Departments of Anthropology, Biology, and Geology, takes the form of concentrations in each of the three departments. Thus students interested primarily in the biological aspects of environmental science may enroll in the Environmental Concentration in Biology, whereas those more interested in the geology and issues of global climate change should enroll in the Environmental Concentration in Geology. Finally, students wishing to explore the evolution and adaptation of human societies from an environmental perspective may enroll in the Environmental Concentration in Anthropology. Thus the concentration consists of three distinct tracks, each of which is grounded in a more established discipline. This structure accommodates the interdisciplinary background necessary for an environmental education while maintaining a home for the student within a more traditional field.

It is likely that in future years the concentration will be offered in other departments as well. In the meantime, students interested in environmental studies in disciplines other than anthropology, biology, and geology are urged to consider relevant courses within those departments, as well as the program listed below. In addition, it is anticipated that students with an environmental science concentration will enroll in relevant courses in the social sciences and humanities, recommended below.

Requirements for the Environmental Sciences Concentration in each of the three departments are structured to encourage discourse between the disciplines. All concentrators begin with pertinent introductory

Environmental Sciences

courses in each department, and all enroll in Principles of Ecology. From there, concentrators diverge into tracks reflecting their specialization within Anthropology, Biology, or Geology. Note, however, that even within these more specialized tracks interdisciplinary courses are stressed. Finally, all concentrators reconvene in a senior seminar in which they make presentations and discuss selected environmental issues from their diverse perspectives.

Note that the requirements listed below *replace* the major requirements of each department, listed elsewhere in the course catalogue. *These are not additions to those major requirements.*

Core Requirements (Students majoring in any of the three departments)

Required:

- Introduction to Anthropology (Anthropology 101)
- Basic Concepts in Biology (Biology 101)
- Principles of Ecology (Biology 220)
- Introduction to Earth System Science and the Environment (Geology 103)
- Senior Seminar in Environmental Sciences (Anthropology, Biology, or Geology 397)

Recommended (one or more of the following):

- Urban Culture and Society (Growth and Structure of Cities 185)
- Principles of Economics (Economics 105)
- Taming the Modern Corporation (Economics 213)
- Public Finance (Economics 214)
- Environmental Economics (Economics 234)
- Comparative Political Movements: Environmentalism (Political Science 222)

Environmental Concentration in Anthropology

Courses outside of the Anthropology Department (one or more of the following):

- Evolution (Anthropology/Biology/Geology/Psychology 236)
- Biology and Public Policy (Biology 210)
- Evolutionary Biology: Advanced Topics (Biology/Geology 336)
- Behavioral Ecology and Sociobiology (Biology 390)
- Energy, Resources and the Environment (Geology 206)

Courses in the Anthropology Department:

- Introduction to Anthropology (Anthropology 102)
- History of Cultural Theory (Anthropology 303)
- Human Ecology (Anthropology 203)
- Senior Conference in Anthropology (Anthropology 398, 399)
- One ethnographic area course which focuses on the cultures of a single region
- Three additional 200- or 300-level courses in Anthropology

The Environmental Concentration in Biology

Courses outside of the Biology Department:

- General Chemistry (Chemistry 101/103, 104)
- Organic Chemistry (Chemistry 211, 212)
- Introductory Physics (Physics 101, 102)
- Advanced Earth System Science (Geology 315)

One additional course in Anthropology, such as:

- Human Evolution (Anthropology 209)
- Medical Anthropology (Anthropology 210)
- Cultural Ecology (Anthropology 324)

Courses in the Biology Department:

- Principles of Biology (Biology 102)
- Genetics (Biology 201) or Developmental Biology (Biology 271)
- One 300-level lab course in physiology or field biology; such as:
 - Organismal Biology (Biology 301)
 - Animal Physiology (Biology 303)
 - Experimental Approaches to Ecology and Behavior (Bio 308)
 - Biological Oceanography (Biology 309)
- Other courses may be substituted with departmental approval

Senior Research Project (Bio 403 [2 semesters] or Bio 405 [one semester])

If needed, additional 300-level courses in Biology to make a total of seven courses in Biology

Strongly Recommended:

- Calculus and Analytic Geometry (Mathematics 101, 102)

Recommended:

- Biology and Public Policy (Biology 210)
- Evolution (Anthropology/Biology/Geology/Psychology 236)
- Evolutionary Biology: Advanced Topics (Biology/Geology 336)
- Computational Models of Biological Organization (Biology 367)
- Behavioral Ecology and Sociobiology (Biology 390)

The Environmental Concentration in Geology

Courses outside of the Geology Department:

- General Chemistry (Chemistry 101/103; 104)
- Calculus and Analytic Geometry (Mathematics 101, 102)
- One additional course in Anthropology; such as:
 - Human Evolution (Anthropology 209)
 - Medical Anthropology (Anthropology 210)
 - Cultural Ecology (Anthropology 324)

Courses in the Geology Department:

- Physical Geology (Geology 101) or Historical Geology (Geology 102)
- Crystallography and Optical Mineralogy (Geology 201)
- Descriptive Mineralogy and Mineral Paragenesis (Geology 202)
- Sedimentary Materials and Environments (Geology 205)
- Advanced Earth System Science (Geology 315)
- Independent Research (Geology 401)
- One additional 300-level course in Geology or Biology, such as:
 - Low-temperature Geochemistry (Geology 302)
 - Geochemistry of Crystalline Rocks (Geology 301)
 - Advanced Sedimentary Geology (Geology 306)
 - Evolutionary Biology: Advanced Topics (Biology/Geology 336)

Recommended:

- Evolution (Anthropology/Biology/Geology/Psychology 236)
- Biology and Public Policy (Biology 210)
- Organic Chemistry (Chemistry 211, 212)
- Inorganic Chemistry (Chemistry 231)

Energy, Resources and the Environment (Geology 206)
Elements of Probability and Statistics (Mathematics 104); or
equivalent
Introductory Physics (Physics 101, 102)

FEMINIST AND GENDER STUDIES

Coordinators:

Anne Dalke, Ph.D., *Senior Lecturer in English*, at Bryn Mawr College
Raji Mohan, Ph.D., *Assistant Professor in English*, at Haverford College

The bi-college concentration in feminist and gender studies is committed to the interdisciplinary study of women and gender. The program includes courses on women's experiences considered both historically and cross-culturally, on literature by and about women, on gender roles and gender socialization, and on gender bias in attempts to account for gender differences. Students plan their programs in consultation with the feminist and gender studies coordinator on their home campus and members of the Feminist and Gender Studies Steering Committee.

Six courses are required for the concentration. (1) One introductory course such as General Studies 112, Anthropology 106, English 280, Sociology 201, Political Science 229. Equivalent courses at Swarthmore or the University of Pennsylvania are acceptable; individual requests to substitute other introductory level courses in gender studies are also considered. (2) The upper level seminar, General Programs 290: Interdisciplinary Perspectives on Gender, which is team-taught by two faculty members from different but representative disciplines. (3) Four additional approved courses from at least two different departments, two of which are 300 level or higher. Units of supervised work (403) may be used to fulfill this requirement. Neither a senior seminar nor a senior thesis is required for the minor; however, with the permission of the major department, a student may choose to count a senior thesis with significant gender studies content toward the minor.

Courses in the Feminist and Gender Studies Program change from year to year. Students are advised to check the course guide at the beginning of each semester.

Feminist and gender studies courses at Bryn Mawr include:

Anthropology 106. Sex, Culture, and Gender
Anthropology 222. Expressive Arts and the Politics of Identity in Central Asia
Anthropology/Cities 246/Comparative Literature 245. Women's Narratives in Modern Migrancy
Anthropology 341. Cultural Perspectives on Human Sexuality, Marriage, and Family *Not offered in 1996-97.*
Biology 307. Biology of Sex Differentiation
Classical and Near Eastern Archaeology 303. Classical Bodies
Classical Studies 153. Roman Women
Comparative Literature 210. Women and Opera

- Comparative Literature 270. The Classical Hero(ines)** *Not offered in 1996-97.*
- Comparative Literature/English 287. The Multicultural Novel (Women Writers)** *Not offered in 1996-97.*
- East Asian Studies/History 186. East Asian Family and Society**
- English 258. Nineteenth Century Novel**
- English 272. New Patterns in Feminist Spirituality** *Not offered in 1996-97.*
- English 280. Major Texts of the Feminist Tradition** *Not offered in 1996-97.*
- English 284. Women Poets: Giving Eurydice a Voice** *Not offered in 1996-97.*
- English 289. Lesbian and Gay Literature**
- English 358. "Women of Talents"**
- French/History 246. Medieval Women**
- French 302. Le printemps de la parole féminine** *Not offered in 1996-97.*
- French 315. Femmes écrivains du XIXe et du XXe siècle** *Not offered in 1996-97.*
- History 292. Women in Britain (Since 1750)**
- History 325. History of Sexuality in America**
- History 338. Women in African Life** *Not offered in 1996-97.*
- History 349. Gender, Sex, and Empire**
- History 391. The Regulation of Sexuality in Victorian England** *Not offered in 1996-97.*
- History of Art 108. Women, Feminism, and the History of Art**
- Philosophy 352. Feminist Philosophy**
- Russian 260. Women Authors in Translation**
- Sociology 201. The Study of Gender in Society** *Not offered in 1996-97.*
- Sociology 217. The Family in Social Context**
- Sociology 225. Third World Women**
- Spanish 223. La identidad femenina de la novela**
- Spanish 226. Gay Cinema and Cultural Transformation** *Not offered in 1996-97.*

Feminist and gender studies courses at Haverford include:

- Anthropology 207b. Visual Anthropology**
- Anthropology 243. Gender and Power in East Asia**
- Biology 247. Human Genetics, Ethics, and Public Policy**
- Biology 248. Disease and Discrimination**
- Biology 252. Women, Medicine, and Biology**
- Classics 217b. Male and Female in Ancient Greece** *Not offered in 1996-97.*
- Comparative Literature/English 277b. Postcolonial Women Writers** *Not offered in 1996-97.*
- English 245. Jane Austen**
- English 278a. Contemporary Women Writers**
- English 282. Fictions of Empire**
- English 301. Sex and Gender in the Middle Ages**
- English 347a. Gender and Race in the Long 18th Century** *Not offered in 1996-97.*
- English 364. Storytelling and the Ruins of Feminism**
- General Programs 112b. Sex and Gender: Modern Feminisms** *Not offered in 1996-97.*
- General Programs 225. Sex and Gender on Film**

General Studies

- General Programs 230. Cultural Politics of Nature and Environmentalism**
General Programs 251. "The Woman Question" in the Nineteenth Century
General Programs 290. Interdisciplinary Perspectives on Gender History 222a. Women in Pre-Industrial Europe *Not offered in 1996-97.*
Political Science 229. Women, Gender, and Politics in the U.S.
Political Science 328. The Politics of Difference and Discrimination
Political Science 359. Feminist Political Theory *Not offered in 1996-97.*
Political Science 391. Theories of Empowerment
Religion 221b. Women and Gender in Early Christianity *Not offered in 1996-97.*
Religion 290b. Feminist Christian Theologies *Not offered in 1996-97.*
Spanish 324. Sexual Minorities in the Spanish Speaking World *Not offered in 1996-97.*
Spanish 325. The Female Voice in Spanish and Spanish American Writing
Spanish 334b. Gender Dissidence in Hispanic Writing

GENERAL STUDIES

Certain courses offered at Bryn Mawr cut across a number of disciplines and emphasize relationships among them; these interdepartmental courses are cross listed and described under each of the departments that sponsor them. Others, sometimes taught by two or more faculty members from different departments working in close cooperation, focus on areas that are not usually covered in the Bryn Mawr curriculum and provide a supplement to the areas more regularly covered; these are called general studies courses and are listed in the Course Guide under the heading of "General Studies."

Many general studies courses are open, without prerequisite, to all students. With the permission of the major department, they may be taken for major credit.

Current studies courses:

- 101. Introduction to African Studies** (Hopkins, Cassanelli)
- 103. Swahili Language and Culture II** (Mshomba)
- 112. The Great Questions of Russian Literature** (Allen, Division III)
- 213. Introduction to Mathematical Logic** (Weaver)
- 215. Introduction to Set Theory** (Weaver)
- 218. Foundations of Mathematics** (Weaver, Division II or Quantitative Skills)
- 299. Emancipation, Decolonization, and Social Reconstruction: Africa and the Americas in the Modern Era** (Osirim)

HEBREW AND JUDAIC STUDIES

Hebrew language instruction is available at Bryn Mawr. At Haverford, Judaic Studies courses are offered by the Department of Religion. Bryn Mawr also offers courses which complement Haverford's offerings in Judaic Studies. All these courses are listed in the Course Guide under the heading Hebrew and Judaic Studies.

001, 002. Elementary Hebrew This course prepares students for reading classical religious texts as well as modern literary work. It covers grammar, composition, and conversation with primary emphasis on fluency in reading. Credit is not given for 001 alone. (Rabeeya)

101, 102. Readings in the Hebrew Bible (Genesis) Critical reading in the book of Genesis with an emphasis on discussions related to modern commentaries. (Rabeeya, Division III)

203. Readings in the Hebrew Bible II This course takes up different texts each year. It may be repeated for credit. 1996-97: The Five Scrolls. An analysis of the cultural and historical background of the texts. (Rabeeya, Division III)

211. Primo Levi, the Holocaust, and its Aftermath (Patruno, Division III; cross listed as Comparative Literature and Italian 211) *Not offered in 1996-97.*

217. Jewish Law and Folklore (Lachs, Division III)

270. Jewish American Literature (Hellerstein, Division III; cross listed as English 270) *Not offered in 1996-97.*

304. Advanced Post-Biblical Hebrew: Tracate Megillah Analysis of the cultural and historical background of the text. (Rabeeya, Division III)

HISPANIC AND HISPANIC-AMERICAN STUDIES

Coordinator:

Enrique Sacerio-Garí, Ph.D., *Dorothy Nepper Marshall Professor of
Hispanic and Hispanic-American Studies*

The program is designed for students interested in a comprehensive study of the society and culture of Spanish America or Spain or both. Students supplement a major in one of the cooperating departments (anthropology, economics, growth and structure of cities, history, history of art, Judaic studies, political science, sociology, and Spanish) with (1) Spanish 240: Hispanic Culture and Civilization, the core course for the concentration, (2) allied courses outside their major department dealing with Hispanic themes and (3) a Senior Essay focusing on a topic that cuts across all the major areas involved.

Requirements for the concentration include (1) competence in Spanish, to be achieved no later than the junior year. This competence may be attested either by a score of at least 675 on the Spanish Achievement test of the College Entrance Examination Board (C.E.E.B.), or by the completion of a course above the intermediate level with a grade of at least 2.0; (2) Spanish 240 and at least five other courses outside the major department and approved by the program coordinator. Students should consult with their advisers as to which courses are most appropriate for their major and special interests; some apply more to the culture of Spain, others to Spanish America; (3) a long paper or an independent project on Spain or Spanish America, to be completed in either semester of the junior year or the first semester of the senior year as part of the work for one of the courses in the major. Topics must be approved and the paper read by both the major department and the Hispanic studies coordinator; (4) a senior essay supervised by a faculty member in one of the departments participating in the concentration.

The Hispanic and Hispanic American Studies concentration is under the general supervision of one member of the Department of Spanish. Students are admitted into the concentration at the end of their sophomore year after the submission of a plan of study, worked out by the student and her major department, which meets the requirements of the concentration.

INTERNATIONAL ECONOMIC RELATIONS

Coordinator:

Noel J. J. Farley, Ph.D., *Professor of Economics*

The Bryn Mawr program in International Economic Relations was developed in 1980, with the help of funds from the Exxon Education Foundation and the International Paper Foundation, to help prepare students skilled in languages for careers in international business or law. The program combines the study of international finance and economic relations with the study of the language and culture of a specific geographical area, chosen from among the French, German, Italian, Russian, and Spanish speaking regions of the world. Students in this program usually major in economics or one of the languages, but depending on prior preparation, a student may be able to complete this program while majoring in another subject.

Participants in the program must meet complete course work in both economics and language, as well as the program's other requirements. The requirements for course work include (1) two 200-level courses in the appropriate language (in special cases, language work done elsewhere — and worked out with a faculty representative of the appropriate language department — is accepted). (2) Economics 105: Principles of Economics (or 101 and 102 at Haverford); Economics 206: International Economics; and Economics 216: Advanced International Economics. The program also requires (3) participation in one of the designated summer programs for the study of advanced language, area studies, and international finance. These programs usually involve both course work and a work-related internship. The summer program is normally taken following the junior year, but may be taken at another time if the student has fulfilled the program's other requirements. An interview may be required to make a final determination of the language competency of the student before acceptance in the summer program occurs. (4) Attendance at a special lecture series, held at Bryn Mawr, on topics in international economic relations.

Students interested in this program should consult with Professor Farley as early as possible in their undergraduate career.

NEURAL AND BEHAVIORAL SCIENCES

Professors:

Karen Greif, Ph.D., *Professor of Biology and Concentration Adviser for Biology at Bryn Mawr College (on leave, 1996-97)*

Paul Grobstein, Ph.D., *Eleanor A. Bliss Professor of Biology at Bryn Mawr College*

Margaret A. Hollyday, Ph.D., *Professor of Biology and Psychology at Bryn Mawr College*

Earl Thomas, Ph.D., *Professor of Psychology and Concentration Adviser for Psychology at Bryn Mawr College*

Associate Professors:

Peter Brodfuehrer, Ph.D., *Associate Professor of Biology at Bryn Mawr College and Chairman of the Undergraduate Committee*

Leslie Rescorla, Ph.D., *Associate Professor of Psychology at Bryn Mawr College*

Assistant Professors:

Kimberly Wright Cassidy, Ph.D., *Assistant Professor of Psychology at Bryn Mawr College*

Wendy F. Sternberg, Ph.D., *Assistant Professor of Psychology at Haverford College and Concentration Adviser for Psychology at Haverford College*

Lecturer:

Deepak Kumar, Ph.D., *Assistant Professor of Computer Science at Bryn Mawr College*

An understanding of human and animal behavior is of interest to a variety of disciplines. Neuroscience has recently developed from a combination including biology, psychology, physiology, and medicine. Neuroscience has exhibited particularly rapid growth in the past ten to twenty years, and has clearly become established as an emerging new discipline relevant to understanding behavior.

The concentration in the neural and behavioral sciences is designed to allow students to pursue a course of studies in behavior and the nervous system across disciplines traditionally represented at Bryn Mawr College. The program is currently administered by the Departments of Biology and Psychology at Bryn Mawr College and the Department of Psychology at Haverford College. Students undertaking the concentration must major in one of these three departments.

The concentration consists of two components. Students must, in general, satisfy the requirements of the department in which they major, with appropriate modifications related to the concentration (consult departmental advisers listed above). For the concentration itself, students must take a series of courses that represent the background in the neural and behavioral sciences and other sciences common to all approaches to the nervous system and behavior. All students, regardless of major, must fulfill the requirements of the core program.

Bryn Mawr College

Core requirements for the concentration are:

- 1) A minimum of one semester of introductory psychology with laboratory.
- 2) A minimum of one semester of introductory biology with laboratory.
- 3) Biology 202 (Neurobiology and Behavior at Bryn Mawr)
- 4) A minimum of one semester of relevant course work at the 200 level or above, taken outside the major department.
- 5) Two semesters of senior research (Biology 401, Psychology 401 at Bryn Mawr)
- 6) Senior Seminar for concentrators (Biology 396, Psychology 396 at Bryn Mawr)
- 7) At least one advanced course in neural and behavioral sciences chosen (with the approval of the concentration adviser) from the courses listed below:

Biology at Bryn Mawr

- 303. Animal Physiology
- 304. Nervous System Structure and Function
- 307. Nervous system structure: Advanced topics
- 322. Neurochemistry
- 336. Advanced Evolution
- 345. Advanced Biochemistry: Receptors
- 364. Developmental Neurobiology
- 367. Computation Models of Biological Organization
- 371. Advanced Topics in Developmental Biology
- 380. Topics in Cellular and Organismal Physiology
- 390. Behavioral Biology and Sociobiology

Psychology at Bryn Mawr

- 301. Emotion
- 322. Learning, Psychobiology and Psychopathology
- 323. Cognitive Neuroscience
- 350. Developmental Cognitive Disorders
- 351. Developmental Psychopathology
- 395. Psychopharmacology
- 397. Laboratory Methods in the Brain and Behavioral Sciences
- 399. Advanced Topics in Learning

Psychology at Haverford

- 221. Primate Origins of Behavior
- 350. Biopsychology of Stress

PEACE AND CONFLICT STUDIES

Coordinator:

Jay Rothman, Ph.D., *Assistant Professor of Political Science and Peace and Conflict Studies*, at Bryn Mawr and Haverford Colleges

The goal of the concentration is to help focus students' coursework around their specific areas of interest central to peace and conflict studies. The concentration is composed of a six-course cluster centering around conflict and cooperation within and between nations. Of these six courses, at least two and no more than three may be in the student's major. Peace and conflict studies draws upon the long-standing interest in war, conflict and peacemaking, and social justice, as well as questions associated with the fields of anthropology, history, political science, social psychology, economics, and sociology. It draws on these fields for theoretical understandings of matters such as bargaining, internal causes of conflict, cooperative and competitive strategies of negotiation, intergroup relations, and the role of institutions in conflict management.

Students typically meet with the coordinator in the spring of their sophomore year to work out a plan for the concentration. All concentrators are required to take three core courses: (1) the introduction to peace and conflict studies (GNPR 111a) (2) either Cross-Cultural Conflict and Conflict Management (POLS 206) or Managing Conflicts in Nations and Organizations (POLS 247), and (3) Advanced Issues in Peace and Conflict Studies (POLS 347). It is advised that concentrators complete at least two of these three courses by the end of their junior year.

Students are required to take three additional courses chosen in consultation with the coordinator working out a plan that focuses this second half of their concentration: regionally, conceptually, or around a particular substantive problem. These courses might include: international conflict and resolution; ethnic conflict in general or in a specific region of the world (e.g. South Africa, the Middle East, Northern Ireland); a theoretical approach to the field like nonviolence, bargaining, or game theory; an applied approach like reducing violence among youth, the arts and peacemaking, community mediation, or labor relations.

Peace and Conflict Studies courses at Bryn Mawr include:

Anthropology 201. Philosophy of Social Science: Introduction to Cultural Analysis

English 381. Literature of Apartheid

History 114. The Historical Imagination: An Introduction to Global History

History 227. Leisure, Technology, and National Identity

History 319. Losing Peace: The League of Nations and the World, 1919-1939

History 349. Topics in Comparative History: Gender, Sex, and Empire

Philosophy 210. Philosophy of Social Science: Introduction to Cultural Analysis

Philosophy 322. Equality Theory

Philosophy 323. Culture and Interpretation

Political Science 141. International Politics
Political Science 206. Conflict and Conflict Management:
A Cross-cultural Approach
Political Science 241. Politics of International Law and
International Institutions
Political Science 316. Ethnic Group Politics
Political Science 398. Senior Conference
Psychology 201. Learning Theory and Behavior
Psychology 208. Social Psychology
Sociology 205. Social Inequality
Sociology 212. Sociology of Poverty
Sociology 214. Aging and Generational Conflict
Sociology 330. Comparative Economic Sociology: Advanced and
Third World Societies
Sociology 355. Marginals and Outsiders: The Sociology of Deviance
Theater 251. Fundamentals of Acting
Theater 253. Performance Ensemble

PHYSICAL EDUCATION AND ATHLETICS

Director:

Jenepher P. Shillingford, M.Ed.

Associate Director:

Lisa N. Boyle, B.S.

Director of Dance and Associate Lecturer in the Arts:

Linda Caruso Haviland, Ph.D.

Senior Lecturers in Physical Education:

Barbara Bolich, B.S. (on leave, Semester I, 1996-97)

Jennifer Davidson, B.S.

Martha McMahan, M.S. (on leave, 1996-97)

Instructors in Physical Education:

Kathleen Miller, B.A.

Ray Tharan, B.S.

The Department of Physical Education and Athletics offers an intercollegiate experience in nine sports and participates in the Centennial Conference. In addition, the College offers several clubs, a broad instructional program based on the wellness concept, and recreational activities. The program reflects the following objectives: (1) to provide opportunities for developing skills, resulting in high levels of fitness, good nutritional habits, and the management of stress; (2) to provide opportunities for all students to develop skill and technique in a chosen activity, thus enhancing a self responsibility for life-style; and (3) to provide opportunities for highly skilled athletes in intercollegiate sports.

Physical Education and Athletics

Bryn Mawr College believes that physical education and competition are integral parts of a liberal arts education, and requires eight terms (four semesters) of physical education, including the successful completion of a swimming requirement.

Reflecting a liberal arts philosophy, the physical education department promotes a holistic approach to lifetime fitness and well-being through its wellness program and related activities. Sponsored by the Department of Physical Education in concert with Dining Services and Health Services, and coordinated with all student service areas on campus through the Deans' and Directors' Committee, the target areas of the wellness program include: (1) nutrition and weight control; (2) stress management; and (3) physical fitness. Reflecting the wellness philosophy, the department helps each student develop a personal responsibility for her life-style.

A swimming test for survival swimming is administered to new students at the beginning of the year. The test includes entry into the water, a ten-minute swim demonstrating two strokes, and floating. For non-swimmers, successful completion of a term of beginning swimming, including drown-proofing techniques, will fulfill the requirement.

Transfer students will receive credit toward the requirement from previous institutions after a review by the director of the department. Students with special needs should consult the director of physical education.

The instructional offerings in physical education include: aerobic dance, African dance, archery, athletic training, badminton, ballet, basketball, children's games, dance ensemble, fencing, flamenco dance, fitness, jazz dance, lacrosse, modern dance, riding, scuba, self-defense seminars, soccer, social dance, softball, stretchercise, swimming, tennis, volleyball, weight training, wellness, yoga, and self-paced/scheduled activities of cycling, jogging, Nautilus, rope jumping, swimming, and walking.

Varsity team experiences at Bryn Mawr include: cross-country, field hockey, lacrosse, basketball, swimming, badminton, volleyball, tennis, and soccer. In the fall of 1993, Bryn Mawr became a charter member of the Centennial Conference for Intercollegiate Athletics, competition in NCAA Division III.

In addition, students may take courses at Haverford College. These courses include body building, golf, intramural sports, karate, running techniques, badminton, squash, and yoga. The Department of Physical Education and Athletics at Bryn Mawr and the Haverford Department of Athletics allow students to choose activities on either campus to fulfill their requirements.

SCHOLARSHIP FUNDS AND PRIZES

The scholarships and prizes listed below have been made available to able and deserving students through the generosity of alumnae/i and friends of the College. Many of them represent the income on endowed funds which in some cases is supplemented by an additional grant, usually taken from expendable gifts from alumnae/i and parents. A student requesting aid does not apply to a particular fund but is considered for all awards administered by the College for which she is qualified.

The Alumnae Regional Scholarship program is the largest single contributor to Bryn Mawr's scholarship awards. In addition to providing funds for the College's financial aid program, alumnae select Regional Scholars to receive \$1,000 research stipends for projects of their choice. This honor carries with it special significance as an award for both academic and personal excellence.

An outstanding scholarship program has been established by the National Merit Scholarship Corporation, and several large corporations sponsor scholarship programs for children of employees. In addition to the generous awards made by these companies there are many others made by foundations and by individual and professional groups. Some of these are regional in designation. Students are urged to consult their schools and community agencies for information in regard to such opportunities.

Bryn Mawr College participates as a sponsor in the National Achievement Scholarship program. As sponsor, the College awards several scholarships through the National Merit Corporation. National Achievement finalists who have indicated that Bryn Mawr is their first choice among institutions will be referred to the College for consideration for this award.

SCHOLARSHIP FUNDS

The Mary L. Jobe Akeley Scholarship Fund was established by bequest of Mary L. Jobe Akeley. It is for undergraduate scholarships with preference being given to students from Ohio. (1967)

The Warren Akin IV Scholarship Fund was established by gifts from Mr. and Mrs. Warren Akin (father) and Mr. and Mrs. William Morgan Akin (brother) of Warren Akin IV, M.A., 1971, Ph.D., 1975. The fund is to be used for Bryn Mawr students, with preference given to graduate students in English. (1984)

The Alumnae Bequest Scholarship Fund was established by bequests received for scholarships from alumnae of the College. (1965)

Note: The dates in parentheses in the listings on this and the following pages indicate the year in which the scholarship was established.

Scholarship Funds and Prizes

Alumnae Regional Scholarships are available to students in all parts of the United States. These scholarships, raised by alumnae, vary in amount and may be renewed each year.

The Marion Louise Ament Scholarship Fund was established by bequest of Berkley Neustadt in honor of his daughter Marion Louise Ament, Class of 1944. (1966)

The Evangeline Walker Andrews May Day Scholarship was established by bequest of Evangeline Walker Andrews, Class of 1893. The income from this fund is to be used for undergraduate scholarships in the Department of English. Mrs. Andrews originated the Bryn Mawr May Day which was first held in 1900. (1963)

The Constance M.K. Applebee Scholarship Fund was established by a bequest under the will of Constance M.K. Applebee, the first director of physical education at Bryn Mawr. Preference is to be given to students in physical education classes. (1981)

The Edith Heyward Ashley and Mabel Pierce Ashley Scholarship Fund was founded by bequest of Mabel Pierce Ashley, Class of 1910, and increased by bequest of Edith Heyward Ashley, Class of 1905. The income is to be awarded as scholarships to undergraduate students majoring in history or English. (1963)

The Mildred P. Bach Fund was established by a bequest of Mildred P. Bach '26 to provide scholarship support for resident students. (1992)

The William O. and Carole P. Bailey Fund for Russian Studies was established by Carole Parsons Bailey '61 and William O. Bailey to support various activities of the Department of Russian, including undergraduate scholarships, teaching, research, and the acquisition of library materials. (1995)

The Elizabeth Congdon Barron Scholarship Fund was founded by the bequest of Elizabeth Congdon Barron, Class of 1902, "for the general purposes of the College." Through gifts from her husband, Alexander J. Barron, the fund was increased and the Elizabeth Congdon Barron Scholarship Fund was established. (1960)

The Florence Bascom Fund was established by bequest of Eleanor Lorenz, Class of 1918, to honor the College's first professor of geology. The income from this fund provides fellowship and scholarship monies for the Department of Geology. (1988)

The Beekey Scholarship Fund was established by Lois E. Beekey, Class of 1955, Sara Beekey Pfaffenroth, Class of 1963, and Mrs. Cyrus E. Beekey. The income is awarded annually to a student majoring in a modern foreign language or in English. (1985)

The Deborah L. Berkman and Marshall L. Berkman Scholarship Fund was established by Deborah Levy Berkman '59 and the family of Marshall Berkman through the Fair Oaks Foundation, as well as through a matching gift from the GE Fund. The Fund provides scholarship support. (1995)

Bryn Mawr College

The Elizabeth P. Bigelow Memorial Scholarship Fund was established by gifts from Mrs. Henry P. Bigelow in memory of her daughter, Elizabeth P. Bigelow, who graduated cum laude in 1930. (1960)

The Star K. Bloom and Estan J. Bloom Scholarship Fund was established by a gift from Star K. Bloom, Class of 1960, and her husband, Estan J. Bloom. The income is to be awarded to academically superior students from the southern part of the United States with preference being given to residents of Alabama. (1976)

The Book Shop Scholarships are awarded annually from the income from the Book Shop Fund. (1947)

The 1967 College Bowl Scholarship Fund of \$16,000 was established by the Bryn Mawr College team from its winnings on the General Electric College Bowl television program. The scholarship grants were donated by the General Electric Company and by Seventeen Magazine and supplemented by gifts from the directors of the College. The members of the team were Ashley Doherty, Class of 1971; Ruth Gais, Class of 1968; Robin Johnson, Class of 1969; and Diane Ostheim, Class of 1969. Income from this fund is awarded to an entering freshman in need of assistance. (1968)

The Norma Bowles ARCS Endowment for the Sciences was established by a gift from Norma Landwehr Bowles, Class of 1942. This fund supports a student, fellow, or lecturer in the sciences who is an American citizen. The award is administered in accordance with the interests of the Achievement Research for College Students Foundation, which seeks to encourage young women to pursue careers in the sciences. (1987)

The James W. Broughton and Emma Hendricks Broughton Scholarship Fund was established by a bequest from the estate of Mildred Hendricks Broughton, Class of 1939, in honor of her parents. The students selected for such financial aid shall be from the midwestern part of the United States. (1972)

The Abby Slade Brayton Durfee and Mary Brayton Durfee Brown Scholarship Fund was founded in honor of Abby Slade Brayton Durfee by bequest of her husband Randall N. Durfee. Mrs. Charles Bennett Brown, Class of 1930, and Randall N. Durfee, Jr., have added to the fund. Preference is given to candidates of English or American descent and to descendants of the Class of 1894. (1924)

The Hannah Brusstar Memorial Scholarship was established by a bequest from the estate of Margaret E. Brusstar, Class of 1903. The income from the fund is to be awarded annually to an undergraduate student who shows unusual ability in mathematics. (1976)

The Bryn Mawr Alumnae Physicians Fund for Premedical Students was established under the sponsorship of two alumnae directors of the College. The income from this fund is to provide a flexible source of financial help to women at Bryn Mawr who have decided to enter medicine, whether or not they choose to major in physical sciences. (1975)

Scholarship Funds and Prizes

Bryn Mawr at the Tenth Decade. This pooled fund was established in the course of the Tenth Decade Campaign for those who wished to contribute to endowment for undergraduate student aid. (1973)

The Bryn Mawr Club of Princeton Scholarship was established by the alumnae of the Bryn Mawr Club of Princeton. (1974)

The Jacob Fussell Byrnes and Mary Byrnes Fund was established in memory of her mother and father by a bequest under the will of Esther Fussell Byrnes. (1948)

The Sophia Sonne Campbell Scholarship Fund was established by a bequest of Sophia Sonne Campbell, Class of 1951. (1973)

The Mariam Coffin Canaday Scholarship Fund was established by a gift from the Ward M. and Mariam C. Canaday Educational and Charitable Trust. The income from this fund is to provide scholarships with preference given to students from Toledo, Ohio, or from District VI of the Alumnae Association. (1962)

The Antoinette Cannon Memorial Scholarship Fund was established by a gift from Janet Thornton, Class of 1905, in memory of her friend Antoinette Cannon, Class of 1907. (1963)

The Jeannette Peabody Cannon Memorial Scholarship Fund was established in memory of Jeannette Peabody Cannon, Class of 1919, through the efforts of the New England Alumnae Regional Scholarship Committee, of which she was a member for twenty years. The scholarship is awarded every three years on the nomination of the Alumnae Scholarship Committee to a promising member of the freshman class, resident of New England, who needs financial assistance. The scholarship may be held during the remaining three years of her college course provided a high standard is maintained. In 1962 the fund was increased by a generous gift from Mrs. Donald Wing of New Haven. (1949)

The Susan Shober Carey Memorial Fund was founded in memory of Susan Shober Carey by gifts from the Class of 1925 and is awarded annually by the president. (1931)

The Florence and Dorothy Child Memorial Scholarship of Bryn Mawr College was founded by bequest of Florence C. Child, Class of 1905. The income from this fund is to be used for the residence fees of students who, without such assistance, would be unable to live in the halls. Preference is to be given to graduates of the Agnes Irwin School and to members of the Society of Friends. If no suitable applicants are available in these two groups, the scholarship aid will then be assigned by the College to students who could not live in residence halls without such assistance and who are not holding other scholarships. (1958)

The Augusta D. Childs Scholarship Fund was established by bequest from the estate of Augusta D. Childs. (1970)

The Jacob Orie and Elizabeth S.M. Clarke Memorial Scholarship was established by bequest from the estate of Elizabeth Clarke and is

Bryn Mawr College

awarded annually to a student born in the United States or any of its territories. (1948)

The Class of 1903 Scholarship Fund was established by a gift on the occasion of the fiftieth reunion of the class. The income from this fund is to be awarded annually to a member of the freshman, sophomore, or junior class for use in the sophomore, junior, or senior years. (1953)

The Class of 1922 Memorial Scholarship Fund was established at the suggestion of members of the Class of 1922 as a perpetual class fund to which members of the class can continue to contribute. (1972)

The Class of 1939 Memorial Fund was established by the Class of 1939 to provide unrestricted scholarship support. (1985)

The Class of 1943 Scholarship Fund was established by gifts from the James H. and Alice I. Goulder Foundation, Inc., of which Alice Ireman Goulder, Class of 1943, and her husband are officers. Members of the Class of 1943 and others add to the fund which continues to grow, and it is hoped that eventually the yearly income will provide full scholarship aid for one or more students at Bryn Mawr. (1974)

The Class of 1944 Memorial Scholarship Fund was established by the Class of 1944 in memory of Jean Mungall and other deceased classmates. (1959)

The Julia Cope Collins Scholarship was established by bequest from the estate of Julia Cope Collins, Class of 1889. (1959)

The Alice Perkins Coville Scholarship Fund was established by Agnes Frances Perkins, Class of 1898, in honor of her sister, Alice Perkins Coville. (1948)

The Regina Katharine Crandall Scholarship was established by a group of her students as a tribute to Regina Katharine Crandall, Margaret Kingsland Haskell Professor of English Composition from 1918 to 1933. The income from this fund is awarded to a sophomore, junior, or senior who in her written English has shown ability and promise and who needs assistance to continue her college work. (1950)

The Louise Hodges Crenshaw Memorial Scholarship Fund. The Army Emergency Relief Board of Managers approved a gift of \$10,000 representing a part of a bequest to them from Evelyn Hodges, Mrs. Crenshaw's sister. The income is to be used to provide scholarships for dependent children of Army members meeting A.E.R. eligibility requirements. (1978)

The Raymond E. and Hilda Buttenwieser Crist '20 Scholarship Fund was established by Raymond E. Crist to provide scholarship support for incoming or returning students who have financial need and are academically outstanding. (1989)

The Annie Lawrie Fabens Crozier Scholarship Award was established by a gift from Mr. and Mrs. Abbott P. Usher in memory of Mrs. Usher's daughter, Annie Lawrie Fabens Crozier, Class of 1951. The scholarship

Scholarship Funds and Prizes

is to be awarded to a junior or senior of distinction who is majoring in English. (1960)

The Rebecca Taylor Mattson Darlington Scholarship Fund was established by members of her family in memory of Rebecca Taylor Mattson Darlington, Class of 1896. (1968)

The Louise Dickey Davison Fund was established by R. John Davison and Roderic H. Davison in memory of Louise Dickey Davison '37, M.A. '38. The Fund provides undergraduate financial aid support, with preference to students in Classical and Near Eastern Archaeology or Classics. (1995)

The E. Merrick Dodd and Winifred H. Dodd Scholarship Fund was established by bequest of Dr. and Mrs. Dodd. (1953)

The Dolphin Scholarship is a full-tuition, four-year scholarship for an outstanding student from the New York City public schools, made possible by an anonymous donor. (1984)

The Lincoln and Clarissa Dryden Fund for Paleontology was established by Clarissa Dryden '32, M.A. '35. This endowed Fund supports activities in Paleontology, including research, education, travel, and undergraduate financial aid. Preference for financial aid is to be given to students in paleontology, geology, environmental studies, and archaeology. (1995)

The Ida L. Edlin Scholarship Fund was established by a bequest from the estate of Ida L. Edlin. The income is to be used for scholarships for deserving students in fine arts or humanities. (1976)

The Ellen Silberblatt Edwards Scholarship Fund was established by friends, family and classmates of Ellen Silberblatt Edwards '64 to honor her memory. The Scholarship is to be awarded to an entering student, preferably from New York City, whose promise of success at Bryn Mawr is not necessarily shown in conventional ways. (1994)

The Evelyn Flower Morris Cope and Jacqueline Pascal Morris Evans Memorial Scholarship was established by Edward W. Evans in memory of Evelyn Flower Morris Cope, Class of 1903, and Jacqueline Pascal Morris Evans, Class of 1908. The fund provides unrestricted scholarship support. (1958)

The Ellen Winsor and Rebecca Winsor Evans Memorial Scholarship Fund was established by bequests by both Ellen Winsor and Rebecca Winsor Evans. The scholarship is to be awarded to a resident African American student. (1959)

The Marguerite N. Farley Scholarship Fund was established by a bequest of Marguerite N. Farley with preference to be given to foreign students. (1956)

The Helen Feldman Scholarship Fund was established by the Class of 1968 at their graduation and friends of Helen Feldman, Class of 1968. The income from this fund is to be used to support summer study in the Soviet Union. (1968)

Bryn Mawr College

The Donita Ferguson Scholarship Fund was established by a bequest from the estate of Donita Ferguson Borden, Class of 1932. The fund provides unrestricted scholarship support. (1987)

The Frances C. Ferris Scholarship Fund was established by a bequest from the estate of Frances C. Ferris. The income from this fund is to be used to assist Friends who would otherwise be unable to attend Bryn Mawr College. (1977)

The Anna Long Flanagan Scholarship Fund was established by a gift from Anna Long Flanagan, Class of 1906, on the occasion of the fifty-fifth reunion of the class. The income is to be used to provide scholarships for Protestant students. (1961)

The Reginald S. and Julia W. Fleet Foundation Scholarship Fund was established by gifts from the Reginald S. and Julia W. Fleet Foundation. (1974)

The Alice Downing Hart Floyd Scholarship Fund was established by a bequest from the estate of Olive Floyd, Class of 1922. The scholarship is awarded for four years to a student with high academic potential and achievement and a well-rounded personality, preferably from New England. (1986)

The Cora B. Fohs and F. Julius Fohs Perpetual Scholarship Fund was established by a gift from the Fohs Foundation. (1965)

The Folly Ranch Fund was established by an anonymous gift, the income from which is to be used for graduate and undergraduate scholarships in honor of Eleanor Donnelley Erdman, Class of 1921; Clarissa Donnelley Haffner, Class of 1921; Elizabeth P. Taylor, Class of 1921; and Jean T. Palmer, Class of 1924. (1974)

The William Franklin Scholarship Fund was established by a bequest from Susan B. Franklin, Class of 1889. The income from this fund is to be used for scholarships for deserving girls, preference being given whenever possible to girls from the Rogers High School, Newport, Rhode Island. (1957)

The Edgar M. Funkhouser Memorial Scholarship Fund was established from his estate by Anne Funkhouser Francis, Class of 1933. Awards may vary in amount up to full tuition and be tenable for four years, preference being given first to residents of southwest Virginia; thereafter to students from District IV eligible for aid in any undergraduate year. (1964)

The Helen Hartman Gemmill Scholarship for students majoring in English has been funded by the Warwick Foundation since 1967. In addition, Helen Hartman Gemmill, Class of 1938, made a gift on the occasion of her fortieth reunion to establish an endowed fund for undergraduate scholarships. (1978)

The Hazel Goldmark Fund was established by the family of Hazel Seligman Goldmark, Class of 1930, with a gift from Hazel Goldmark's estate. Although she did not provide for the College in her will, Mrs.

Scholarship Funds and Prizes

Goldmark told her daughters of her wish to give a gift to Bryn Mawr. Because she worked for many years in the New York Bryn Mawr Bookstore to raise money for scholarships, the College administration recommended that the gift be used for financial aid for students. (1991)

The Phyllis Goodhart Gordan Scholarship Fund was established by gifts from the Class of 1935, in honor of Phyllis Goodhart Gordan, Class of 1935. The fund is used to support scholarships with preference given to students in the languages. (1985)

The Habsburg, Feldman Scholarship Fund was established by Habsburg, Feldman Fine Art Auctioneers to support scholarship aid for students who demonstrate excellence in the study of history of art. (1990)

The Edith Rockwell Hall Scholarship Fund was established by a bequest from the estate of Florence R. Hall in memory of her sister Edith Rockwell Hall, Class of 1892. (1977)

The Anna Hallowell Memorial Scholarship was founded in memory of Anna Hallowell by her family. The income is awarded annually to the junior in need of aid who has the highest academic record. (1912)

The Alice Ferree Hayt Memorial Prize was established by a bequest from the estate of Effie Todd Hayt in memory of her daughter Alice Ferree Hayt. The income of the fund is to be awarded annually to one or more students of the College in need of financial assistance for their personal use. (1977)

The Nora M. and Patrick J. Healy Scholarship Fund was established when family and friends of Patrick Healy, father of Margaret (Ph.D. '69) and Nora (M.S.S. '73), made gifts to the Nora M. Healy Fund in his memory. The Nora M. Healy Fund was established in 1982 with memorial gifts received for Mrs. Healy, Patrick's wife. The purpose of the fund is financial aid for students with preference given to students from either of the graduate schools. (1989)

The William Randolph Hearst Scholarship for Minority Students was established by grants from The Hearst Foundation, Inc. to endow an undergraduate scholarship fund for minority students. (1992)

The Katharine Hepburn Scholarship, first given for the year 1969-70, is awarded annually in honor of Katharine Hepburn to a student interested in the study of drama and motion pictures and in the cultivation of English diction and literary appreciation. (1952)

The Katharine Houghton Hepburn Memorial Scholarship was given in memory of Katharine Houghton Hepburn, Class of 1900. The income on this fund is awarded for the junior or senior year to a student or students who have demonstrated both ability in her or their chosen field and independence of mind and spirit. (1958)

The Annemarie Bettmann Holborn Fund was established by Hanna Holborn Gray, Class of 1950, and her husband, Charles Gray, in honor of Mrs. Gray's mother, Annemarie Bettmann Holborn. The income from the fund is to be used for scholarship and fellowship aid to undergradu-

ate or graduate students in the field of classics, including classical archaeology. (1991)

The George Bates Hopkins Memorial Scholarships were founded by a gift from Mrs. Elizabeth Hopkins Johnson in memory of her father. Preference is given to students of music and, in default of these, to students majoring in history and thereafter to students in other departments. (1921)

The Maria Hopper Scholarships, two in number, were founded by bequest under the will of Maria Hopper of Philadelphia and are awarded annually. The income from this fund is used for aid to sophomores. (1901)

The Leila Houghteling Memorial Scholarship Fund was founded in memory of Leila Houghteling, Class of 1911, by members of her family and a group of her contemporaries. It is awarded every three years on the nomination of the Alumnae Scholarship and Loan Fund Committee to a member of the freshman class and is held during the remaining three years of her college course. (1929)

The Shippen Huidekoper Scholarship Fund was established by an anonymous gift. The income is awarded annually on the nomination of the president. (1936)

The Evelyn Hunt Scholarships, two in number, were founded in memory of Evelyn Hunt by a bequest under the will of Evelyn Ramsey Hunt, Class of 1898. (1931)

The Lillia Babbitt Hyde Scholarship Fund was established by gifts from the Lillia Babbitt Hyde Foundation to establish the Lillia Babbitt Hyde Scholarship for award, in so far as possible, to students whose major subject will lead to a medical education or a scientific education in chemistry. (1963)

The Jane Lilley Ireson Scholarship was established by a bequest of Jennie E. Ireson, in honor of her mother, Jane Lilley Ireson. The income from this fund is awarded to worthy students who require financial assistance. (1959)

The Alice Schlosberg Isador Fund for the Study of French was established by Alice Schlosberg Isador to provide support for a meritorious and needy student of French, who is interested in teaching, to study abroad in the summer at the Institut d'Etudes Françaises d'Avignon or an accredited Junior Year Abroad Program during the academic year. (1995)

The Alice Day Jackson Scholarship Fund was given by the late Percy Jackson in memory of his wife, Alice Day Jackson, Class of 1902. The income from this fund is awarded annually to an entering student. (1930)

The Elizabeth Bethune Higginson Jackson Scholarship Fund was established by gifts in memory of Elizabeth Bethune Higginson Jackson, Class of 1897, by members of her family and friends. The income from

Scholarship Funds and Prizes

the fund is to be used for scholarships for undergraduate students as determined by the College Scholarship Committee. (1974)

The E. Wheeler and Florence Jenkins Scholarship Fund was established by a bequest of Dorothy DeG. Jenkins, Class of 1920. The fund is used to establish scholarships in memory of her parents, with preference given to students in the Departments of Mathematics or Physics. (1981)

The Henrietta C. Jennings Scholarship Fund was established with remainder interest of a Living Income Agreement provided by Henrietta C. Jennings. (1984)

The Pauline Jones Scholarship Fund was established by friends, students, and colleagues in honor of Pauline Jones, Class of 1935, upon the occasion of her retirement after five decades of service to the College. The fund provides financial aid to either undergraduate French majors or graduate students in French. (1985)

The Kate Kaiser Scholarship Fund was established by Ruth Kaiser Nelson, Class of 1958, in honor of her mother, Kate Kaiser. The fund provides scholarship support, with preference given to non-traditional age students. (1991)

The Sue Mead Kaiser Scholarship Fund was established by the alumnae of the Bryn Mawr Club of Northern California and other individuals in memory of Sue Mead Kaiser, Class of 1931. (1974)

The Kathryn M. Kalbfleisch and George C. Kalbfleisch Scholarship Fund was established under the will of Kathryn M. Kalbfleisch, Class of 1924. (1972)

The Alice Lovell Kellogg Fund was founded by a bequest by Alice Lovell Kellogg, Class of 1903, to provide scholarships for deserving students. (1965)

The Minnie Murdoch Kendrick Memorial Scholarship, tenable for four years, was founded by bequest of George W. Kendrick, Jr., in memory of his wife. It is awarded every four years to a candidate nominated by the Alumnae Association of the Philadelphia High School for Girls. (1916)

The Misses Kirk Scholarship Fund was founded in honor of the Misses Kirk by the Alumnae Association of the Kirk School in Bryn Mawr. (1929)

The Catharine J. Korman Scholarship Fund was established by a bequest from the estate of Catharine J. Korman, Class of 1917, to provide unrestricted scholarship support. (1986)

The Charlotte Louise Belshe Kress Scholarship Fund was established by bequest of Paul F. Kress in memory of his wife Charlotte Louise Belshe Kress '54. The Scholarship is to be awarded to an undergraduate. (1994)

The Ida E. Richardson, Alice H. Richardson, and Edward P. Langley Scholarship Fund was established by bequest under the will of Edward P. Langley. (1969)

The Minor W. Latham Scholarship Fund was established by a bequest from the estate of John C. Latham in memory of his sister, Minor W. Latham, a graduate student at Bryn Mawr in 1904. The scholarships provide tuition, living expenses, and extras for one or more financially needy students from the South who will major in or are majoring in English literature. (1984)

The Marguerite Lehr Scholarship Fund was established through gifts made by former students and friends of Marguerite Lehr, Ph.D. 1925, and member of the Bryn Mawr faculty from 1924 to 1967. The income from this fund supports needy undergraduate students who have demonstrated excellence in the field of mathematics. (1988)

The Clara Bertram Little Memorial Scholarship was founded by Eleanor Little Aldrich, Class of 1905, in memory of her mother. The income is awarded to an entering student from New England on the basis of merit and financial need. (1947)

The Mary Anna Longstreth Memorial Scholarship was given in memory of Mary Anna Longstreth by alumnae and children of alumnae of the Mary Anna Longstreth School and by a few of her friends. (1912)

The Lorenz-Showers Scholarship Fund was established by Justina Lorenz Showers, Class of 1907, in honor of her parents, Edmund S. Lorenz and Florence K. Lorenz, and of her husband, John Balmer Showers. (1943)

The Alice Low Lowry Memorial Scholarship Fund was established by gifts in memory of Alice Low Lowry, Class of 1938, by members of her family and friends. The income is to be used for scholarships for undergraduate and graduate students. (1968)

The Lucas Scholarship Fund was established by Diana Daniel Lucas, Class of 1944, in memory of her parents, Eugene Willett van Court Lucas, Jr., and Diana Elmendorf Richards Lucas; her brother, Peter Randell Lucas; and her uncle, John Daniel Lucas. The fund provides unrestricted scholarship support. (1985)

The Katharine Mali Scholarship Fund was established by a bequest of Katharine Mali, Class of 1923, for undergraduate scholarships. (1980)

The Helen Taft Manning Scholarship Fund was established by Julia Bolton Fleet, Class of 1943, through a gift from the Reginald and Julia B. Fleet Foundation, in memory of Helen Taft Manning, Class of 1915. The income from this fund provides unrestricted undergraduate scholarship support. (1987)

The Dorothy Nepper Marshall Scholarship Fund was established by a bequest from the estate of Dorothy Nepper Marshall, Ph.D. 1944, to provide unrestricted scholarship support. (1986)

The Katherine McClatchy McAnaney Memorial Scholarship Fund was established by a bequest under the will of Francis A. McAnaney, husband of Katherine McClatchy McAnaney '35, for undergraduate scholarship support. (1993)

Scholarship Funds and Prizes

The Katharine E. McBride Undergraduate Scholarship Fund was established by a gift made by Gwen Davis, Class of 1954. It has been added to by others in honor of Miss McBride. (1970)

The Gertrude Howard Honor McCormick Scholarship Fund was established by gift of the late Gertrude Howard Honor McCormick. The scholarship is awarded to a student of excellent standing, preferably for her freshman year. If she maintains excellent work in college, she may continue to receive scholarship aid through her sophomore, junior, and senior years. (1950)

The Margaret Hines McKenzie Scholarship Fund was established by bequest of Margaret Hines McKenzie '30 to provide scholarship support for undergraduate women from the southern states, with preference to the state of North Carolina. (1993)

The Anne Cutting Jones and Edith Melcher Scholarship Fund was established by a bequest of Anne Cutting Jones and Edith Melcher for a student in the Department of French. (1971)

The Midwest Scholarship Endowment Fund was established by alumnae from District VII in order "to enlarge the benefits which can be provided for able students from the Midwest." (1974)

The Beatrice Miller Memorial Scholarship Fund was established by a bequest of Beatrice Miller Ullrich, Class of 1913. (1969)

The Elinor Dodge Miller Scholarship Fund was established by the Miller and Chevalier Charitable Foundation in memory of Elinor Dodge Miller, Class of 1902. The fund provides scholarship support to students of good moral character and honorable conduct whose past scholarship records are meritorious. (1959)

The Karen Lee Mitchell '86 Scholarship Fund was established in memory of Karen Lee Mitchell, Class of 1986, by her parents. The fund provides scholarship support for students of English literature with a special interest in women's studies, a field of particular concern to their daughter, Karen. (1992)

The Jesse S. Moore Foundation Fund was established by Caroline Moore, Class of 1956, for post-college women with financial need who have matriculated at Bryn Mawr from the Katharine E. McBride Scholars Program. (1982)

The Constance Lewis and Martha Rockwell Moorhouse 1904 Memorial Scholarship Fund was established by the Class of 1904 in memory of their classmates Constance Lewis and Martha Rockwell Moorhouse. (1920)

The Margaret B. Morison Scholarship Fund was established by a bequest of Margaret B. Morison, Class of 1907. The fund gives preference to graduates of the Bryn Mawr School in Baltimore, Maryland. (1981)

The Mary McLean and Ellen A. Murter Memorial Fund was founded in memory of her two aunts by bequest of Mary E. Stevens of

Germantown, Philadelphia. The income is used for an annual scholarship. (1933)

The Frank L. Neall and Mina W. Neall Scholarship Fund was established by a legacy from the estate of Adelaide W. Neall, Class of 1906, in memory of her parents. (1957)

The New Hampshire Scholarship Fund was established by the Spaulding-Potter Charitable Trust. A matching fund was raised by contributions from New Hampshire alumnae. Income from the two funds is awarded each year to an undergraduate from New Hampshire. (1964)

The Alice F. Newkirk Scholarship Fund was founded by bequest of Alice F. Newkirk, graduate student in 1910-12 and 1919-20. (1965)

The Patricia McKnew Nielsen Scholarship Fund was established by Patricia McKnew Nielsen, Class of 1943. The fund gives unrestricted scholarships to undergraduate students. (1985)

The Bertha Norris Bowen and Mary Rachel Norris Memorial Scholarship Fund was established by bequest under the will of Mary Rachel Norris, Class of 1905, B.A. 1906, M.S. 1911, in memory of Bertha Norris Bowen, who was for many years a teacher in Philadelphia. (1971)

The Mary Frances Nunns Scholarship Fund was established by a bequest under the will of Mary Frances Nunns. (1960)

The Pacific Northwest Scholarship Fund was established by a gift from Natalie Bell Brown, Class of 1943. Preference is given to students from the Pacific Northwest. (1976)

The Florence Morse Palmer Scholarship was founded in memory of Florence Morse Palmer by her daughter, Jean T. Palmer, Class of 1924. (1954)

The Margaret Tyler Paul Scholarship was established by the fortieth reunion gift from the Class of 1922. (1963)

The Fanny R. S. Peabody Scholarship Fund was established by bequest of Fanny R. S. Peabody. The income from the Peabody Fund is awarded to students from the western states. (1942)

The Delia Avery Perkins Scholarship was established by bequest from Delia Avery Perkins, Class of 1900. Mrs. Perkins was chairman of the New Jersey Scholarship Committee for a number of years. The income on this fund is to be awarded to freshman students from Northern New Jersey. (1965)

The Mary DeWitt Pettit Scholarship Fund was established by a gift from the Class of 1928 to honor their classmate and is used for student scholarship aid. (1978)

Scholarship Funds and Prizes

The Ethel C. Pfaff Scholarship Fund was established by a bequest from Ethel C. Pfaff, Class of 1904. The income from this fund is to be awarded to entering freshmen. (1967)

The Vinton Liddell Pickens '22 Scholarship Fund was established by Cornelia Pickens Suhler '47 in memory of her mother. The Fund provides support to undergraduates, with preference to students majoring in Fine Arts or the Growth and Structure of Cities, or concentrating in Environmental Studies. (1995)

The Louise Hyman Pollak Scholarship was founded by the Board of Trustees from a bequest by Louise Hyman Pollak, Class of 1908. The income from this fund, which has been supplemented by gifts from the late Julian A. Pollak and his son, David Pollak, is awarded annually to an entering student from one of the central states, east of the Mississippi River. Preference is given to residents of Cincinnati. (1932)

The Porter Scholarship Fund was established by Carol Porter Carter, Class of 1960, and her mother, Mrs. Paul W. Porter. The fund supports a returning student by providing funds for books or living expenses. (1985)

The Anna M. Powers Memorial Scholarship was founded in memory of Anna M. Powers by a gift from her daughter, Mrs. J. Campbell Harris. It is awarded annually to a senior. (1902)

The Anna and Ethel Powers Memorial Scholarship was established by a gift in memory of Anna Powers, Class of 1890, by her sister, Mrs. Charles Merrill Hough. The fund has been re-established in memory of both Anna Powers and her sister, Mrs. Hough (Ethel Powers), by Nancy Hough Smith, Class of 1925. (1919)

The Thomas H. Powers Memorial Scholarship was founded in memory of Thomas H. Powers by bequest under the will of his daughter, Mrs. J. Campbell Harris. It is awarded annually to a senior. (1902)

The Patricia A. Quinn Scholarship Fund was established by Joseph J. Connolly in honor of his wife, Patricia Quinn Connolly, Class of 1991. The fund provides financial aid to an undergraduate student who has graduated from a high school of the Catholic Archdiocese of Philadelphia. The Quinn Scholarship can also be awarded to a student with financial need in the Katharine E. McBride Scholars Program, or to another nontraditional-age student at the College, if in a given year no students meet the above criteria. (1991)

The Caroline Remak Ramsay Scholarship Fund was established with a gift from Caroline Remak Ramsay, Class of 1925, to provide scholarship support for undergraduate students in the social sciences. (1992)

The James E. Rhoads Memorial Scholarships were founded in memory of the first president of the College, Dr. James E. Rhoads, by the Alumnae Association of Bryn Mawr College. The income is awarded annually to two students. The James E. Rhoads Memorial Junior Scholarship is awarded to a student who has attended Bryn Mawr for at least three semesters, has done excellent work, and expresses her intention of

fulfilling the requirements for the degree of Bachelor of Arts at the College. The James E. Rhoads Memorial Sophomore Scholarship is awarded to a student who has attended Bryn Mawr College for at least one semester and who also meets the above conditions. (1898)

The Amelia Richards Scholarship was founded in memory of Amelia Richards, Class of 1918, by bequest of her mother, Mrs. Lucy P. Wilson. It is awarded annually by the trustees on the nomination of the president. (1921)

The Maximilian and Reba E. Richter Scholarship Fund was established by bequest of Max Richter, father of Helen Richter Elser, Class of 1913. The income from this fund is to be used to provide assistance for one or more students in the obtaining of either an academic or professional degree. The fund shall be administered on a non-sectarian basis to such applicants as are deemed worthy by habits of character and scholarship. No promises of repayment shall be exacted, but it is hoped that students so benefited will desire when possible to contribute to the fund in order that similar aid may be extended to others. Such students shall be selected from among the graduates of public high schools or public colleges in the City of New York. (1961)

The Alice Mitchell Rivlin Scholarship Fund was established through a gift from an anonymous donor in honor of Alice Mitchell Rivlin '52. The income from the Fund supports undergraduate scholarships. (1996)

The Nancy Perry Robinson Memorial Scholarship Fund was established by a gift from Mrs. Huston B. Almond, of Philadelphia, in memory of her godchild, Nancy Perry Robinson, Class of 1945. The income of the fund is to be awarded annually to an undergraduate student, with preference being given to a student majoring in French. (1973)

The Marie L. Rose Huguenot Scholarship. \$1,000 a year is available to students of Huguenot ancestry nominated by the College for award by The Huguenot Society of America. Special application forms are available from the College's Office of Financial Aid.

The Margaret LaFoy Rossiter and Mabel Gibson LaFoy Fund was established by Margaret LaFoy Rossiter, M.A. '38, Ph.D. '41, and her husband. The Fund provides scholarship support, with preference to women in the Graduate School of Arts and Sciences, and may be used to support able junior or senior undergraduates. (1994)

The Edith Rondinella Rudolphy Memorial Scholarship Fund was established by a bequest of Elisabeth L. Rondinella in memory of her daughter Edith Rondinella Rudolphy, Class of 1919. The income from the fund is to be used for the lodging, board, and tuition of deserving students. (1992)

The Ruth L. Sampter Fund was established by the bequest of Ruth L. Sampter to support deserving students in the Department of English, especially those with an interest in poetry. (1989)

The Serena Hand Savage Memorial Scholarship was established in memory of Serena Hand Savage, Class of 1922, by her friends. It is

Scholarship Funds and Prizes

awarded to a member of the junior class who shows great distinction of scholarship and character. This scholarship may be renewed in the senior year. (1951)

The J. Henry Scattergood Scholarship Fund was established by a gift from the Friends' Freedmen's Association to be used for undergraduate scholarships for African American students. (1975)

The Constance Schaar Scholarship Fund was established by the parents and friends of Constance Schaar, Class of 1963. The Class of 1963 added their first reunion gift to this fund. (1964)

The Scholarship Endowment Fund was established by a gift from Constance E. Flint. (1970)

The Zella Boynton Selden Scholarship Fund was established in memory of Zella B. Selden, Class of 1920, in recognition of her many years of devoted work with the New York and Southern Connecticut Regional Scholarship Committee. (1976)

The Judith Harris Selig Scholarship Fund was established in memory of Judith Harris Selig, Class of 1957, by members of her family, classmates, and friends. In 1970 the fund was increased by a further gift from her parents, Dr. and Mrs. Herman S. Harris. (1968)

The Mary Williams Sherman Memorial Scholarship Fund was established by bequest of Bertha Williams of Princeton, New Jersey. (1942)

The Frances Marion Simpson Scholarships, carrying up to full tuition and tenable for four years, were founded in memory of Frances Simpson Pfahler, Class of 1906, by Justice Alexander Simpson, Jr. One scholarship is awarded each year to a member of the entering freshman class. In awarding these scholarships preference is given first to residents of Philadelphia and Montgomery Counties, who have been prepared in the public schools of these counties; thereafter, under the same conditions, to residents to other counties of Pennsylvania and, in special cases, to candidates from other localities. Holders of these scholarships are expected to repay the sums advanced to them. (1912)

The Lillian Seidler Slaff Scholarship Fund was established in memory of Lillian Seidler Slaff, Class of 1940, to provide an award to a member of the junior class for outstanding work in the social sciences. (1980)

The Gertrude Slaughter Scholarship Fund was established by bequest of Gertrude Taylor Slaughter, Class of 1893. The income on this fund is preferably to be awarded to students of Greek or Latin. (1964)

The Anna Margaret Sloan and Mary Sloan Scholarships were founded by bequest of Mary Sloan of Pittsburgh. The income is awarded annually to students majoring in philosophy or psychology. (1942)

The Smalley Foundation Scholarship is made possible by a grant from The Smalley Foundation, awarded in honor of Elisa Dearhouse Doyle '85, to provide an annual scholarship for an undergraduate. (1995)

The W.W. Smith Scholar Grants are made possible by the W.W. Smith Charitable Trust. The scholarships are awarded to needy, full-time undergraduate students in good academic standing, and may be awarded to the same student for two or more years. (1978)

The Cordelia Clark Sowden Scholarship Fund was established by a bequest from Helen C. Sowden. (1957)

The C. V. Starr Scholarship Fund was established by a grant from the Starr Foundation to provide scholarship support with preference to undergraduate students. (1988)

The Marian Frances Statler Fund was established by bequest of Ellsworth Morgan Statler in honor of his sister Marian Frances Statler, Class of 1902. The income from this fund supports undergraduate scholarships. (1988)

The Amy Sussman Steinhart Scholarship, carrying full tuition, was founded in memory of Amy Sussman Steinhart, Class of 1902, by her family and friends. The income is awarded annually to an entering student from one of the states on the west coast. (1932)

The Mary E. Stevens Scholarship Fund was given in memory of Mary E. Stevens by former pupils of the Stevens School in Germantown. The scholarship is awarded annually to a junior. (1897)

The Anna Lord Strauss Scholarship and Fellowship Fund was established by a gift from Anna Lord Strauss to support graduate and undergraduate students who are interested in fields leading to public service or which involve education in the process of government. (1976)

The Summerfield Foundation Scholarship was established by a gift from the Solon E. Summerfield Foundation. The income from this fund is to be used to assist able students who need financial help to continue their studies. (1958)

The Mary Hamilton Swindler Scholarship for the study of archaeology was established in honor of Mary Hamilton Swindler, Professor of Classical Archaeology from 1931 to 1949, by a group of friends and former students. (1950)

The Elizabeth P. Taylor Scholarship Fund was established by a bequest from Elizabeth P. Taylor, Class of 1921. (1960)

The Marion B. Tinaglia Scholarship Fund was established by a gift from John J. Tinaglia in memory of his wife, Edith Marion Brunt Tinaglia, Class of 1945. (1983)

The Ethel Vick Wallace Townsend Memorial Fund was established by Elbert S. Townsend in memory of his wife, Ethel Vick Wallace Townsend, Class of 1908. The income from this fund, held by the Buffalo Foundation, is to be used for undergraduate scholarships. (1967)

The Kate Wendell Townsend Memorial Scholarship was established by a bequest from Katharine W. Sisson, Class of 1920, in memory of her

Scholarship Funds and Prizes

mother. The income is to be awarded annually to an undergraduate, preferably from New England, who has made a definite contribution to the life of the College in some way besides scholastic attainment. (1978)

The Florence Green Turner Scholarship Fund was established by Florence Green Turner, Class of 1926, for scholarship support for needy students. (1991)

The Anne Hawks Vaux Scholarship Fund was founded in her memory by her husband, George Vaux, and added to by some of her friends. The income is to be awarded annually to a student in need of financial aid. (1979)

The Elizabeth Gray Vining Scholarship Fund was established by gifts from over 100 alumnae and friends of the College in Japan, in honor of Elizabeth Vining, Class of 1923, former tutor to the Crown Prince. The purpose of this fund is to support Bryn Mawr alumnae, graduate students, or faculty members who desire to do academic research in Japan or to have direct contact with Japanese culture. (1973)

The Mildred and Carl Otto von Kienbusch Fund was established by bequest of C. Otto von Kienbusch. (1976)

The Mildred Clarke Pressinger von Kienbusch Fund was established by C. Otto von Kienbusch in memory of his wife, Mildred Clarke Pressinger von Kienbusch, Class of 1909. (1968)

The Mary E.G. Waddell Scholarship Fund was established by a bequest from the estate of Mary E.G. Waddell. The income from this fund is to be used for scholarships for undergraduates and graduate students interested in the study of mathematics who are daughters of American citizens of Canadian descent. (1972)

The Julia Ward Scholarship Fund was established by a gift for a scholarship in memory of Julia Ward, Class of 1923, by one of her friends and by additional gifts from others. The income is to be used for undergraduate scholarships. (1963)

The Eliza Jane Watson Scholarship Fund was established by gifts from the John Jay and Eliza Jane Watson Foundation. The income from this fund is to be used to assist one or more students to meet the cost of tuition. (1964)

The Elizabeth Wilson White Memorial Scholarship was founded in memory of Elizabeth Wilson White by a gift by Thomas Raeburn White. It is awarded annually by the president. (1923)

The Susan Opstad White '58 Scholarship Fund was established by Mrs. Raymond Opstad in honor of her daughter, Susan Opstad White, Class of 1958. The scholarship is awarded annually to a deserving student in need of financial help. (1987)

The Thomas Raeburn White Scholarships were established by Amos and Dorothy Peaslee in honor of Thomas Raeburn White, trustee of the College from 1907 until his death in 1959, counsel to the College

Bryn Mawr College

throughout these years, and president of the trustees from 1956 to 1959. The income from the fund is to be used for prizes to undergraduate students who plan to study foreign languages abroad during the summer under the auspices of an approved program. (1964)

The Ruth Whittredge '25 Scholarship Fund was established by Ruth Whittredge, Class of 1925, to provide financial aid to students, with preference given to graduate students. (1986)

The Mary R. G. Williams Scholarship Fund was established by a bequest of Mary R. G. Williams. The income is used for emergency grants to women who are paying their way through college. (1958)

The Mary Peabody Williamson Scholarship was founded by bequest of Mary Peabody Williamson, Class of 1903. (1939)

The Rebecca Winsor Evans and Ellen Winsor Memorial Scholarship Funds were established by a bequest of Rebecca Winsor Evans and Ellen Winsor for resident African American students. (1959)

The Marion H. Curtin Winsor Memorial Scholarship was established by a bequest of Mary Winsor in memory of her mother. The income on this fund is to be awarded to a resident African American student. (1959)

The Mary Winsor Scholarship in Archaeology was established by a bequest under the will of Mary Winsor. (1959)

The Allegra Woodworth '25 Scholarship Fund was established by Mary Katharine Woodworth, Class of 1924, in memory of her sister. A bequest from Mary Woodworth increased the size of the fund and expanded its purpose in 1989. The scholarship is to be awarded annually to a student with a compelling interest in history and world affairs, history of art, or English literature. (1990)

The Mary K. Woodworth '24 and Allegra Woodworth '25 Scholarship Fund was established by a bequest of Mary Katharine Woodworth, Class of 1924. The scholarship is awarded annually to a student with a compelling interest in history and world affairs, history of art, or English literature. (1989)

The Gertrude Miller Wright Scholarships were established under the will of Dorothy M. Wright, Class of 1931, for needy students of Bryn Mawr College. (1972)

The Lila M. Wright Memorial Scholarship was founded in her memory by gifts from the alumnae of Miss Wright's School of Bryn Mawr. (1934)

The Margaret W. Wright and S. Eric Wright Scholarship Fund was established by a bequest from the estate of Margaret White Wright, Class of 1943. The fund provides financial aid to needy students of Quaker lineage. (1985)

The Georgie W. Yeatman Scholarship was founded by bequest under the will of Georgie W. Yeatman of Philadelphia. (1941)

SCHOLARSHIPS FOR INTERNATIONAL STUDENTS

The Frances Porcher Bowles Memorial Scholarship Fund was established by donations from various contributors in memory of Frances Porcher Bowles, Class of 1936. The income is used for scholarship aid to foreign students. (1985)

The Bryn Mawr/Africa Exchange Fund is an anonymous donation given to support scholarship aid to African students in the undergraduate College or graduate school of Bryn Mawr, for study and research in Africa by Bryn Mawr faculty and students, for lectures or lectureships at Bryn Mawr by visiting African scholars, statesmen, and artists, and for library and teaching materials for African studies at Bryn Mawr. (1973)

The Bryn Mawr Canadian Scholarship is raised and awarded each year by Bryn Mawr alumnae living in Canada. The scholarship, varying in amount, is awarded to a Canadian student entering either the undergraduate College or graduate school. (1965)

The Chinese Scholarship comes in part from the annual income of a fund established by a group of alumnae and friends of the College in order to meet all or part of the expenses of a Chinese student during her four undergraduate years at Bryn Mawr College. (1978)

The Lois Sherman Chope Scholarship Fund was established by Lois Sherman Chope, Class of 1949, with a gift made through the Chope Foundation. The purpose of the fund is to provide undergraduate scholarship support for international students. (1992)

The Elizabeth Dodge Clarke Scholarship Fund was established by the Cleveland H. Dodge Foundation for support of international students. (1984)

The Barbara Cooley McNamee Dudley Scholarship Fund was established by a gift from Robin Krivanek, sister of Barbara Cooley McNamee Dudley, Class of 1942, for financial aid to undergraduate and graduate students from foreign countries. (1983)

The Marguerite N. Farley Scholarships for foreign students were established by bequest of Marguerite N. Farley. The income from the fund is used for scholarships for foreign graduate and undergraduate students covering part or all of their expenses for tuition and residence. (1956)

The Susan Grimes Walker Fitzgerald Fund was established by a gift from Susan Fitzgerald, Class of 1929, in honor of her mother Susan Grimes Walker Fitzgerald, Class of 1893. It is to be used for foreign graduate and undergraduate students studying at Bryn Mawr or for Bryn Mawr students doing research abroad in the summer or during the academic year. (1975)

The Margaret Y. Kent Scholarship Fund was established by bequest of Margaret Y. Kent, Class of 1908. It is to be used to provide scholarship assistance to foreign students. (1976)

The Lora Tong Lee Memorial Scholarship is awarded annually by the

Bryn Mawr College

Lee Foundation, Singapore, to a Chinese student for tuition, room, and board, in memory of Lora Tong Lee, M.A. 1944. (1975)

The Middle East Scholarship Fund was established by a gift from Eliza Cope Harrison, Class of 1958. The purpose of the fund is to enable the College "to make scholarship awards to able students from a number of Middle Eastern Countries." (1975)

The Mrs. Wistar Morris Japanese Scholarship was established when the Japanese Scholarship Committee of Philadelphia, founded in 1893, turned over its assets to Bryn Mawr College. The income from this fund is to be used for scholarships for Japanese women. (1978)

The Special Trustee's Scholarship is awarded every four years to a foreign student. It carries free tuition and is tenable for four years. The scholarship for students from foreign countries was first offered by the trustees in 1940.

The Harris and Clare Wofford International Fund is an endowed fund, the income only to be used to support the College's international activities with emphasis on providing scholarships for international students at Bryn Mawr. (1978)

PRIZES AND ACADEMIC AWARDS

The following awards, fellowships, scholarships, and prizes are awarded by the faculty and are given solely on the basis of academic distinction and achievement.

The Academy of American Poets Prize of \$100, awarded in memory of Marie Bullock, the Academy's founder and president, is given each year to the student who submits to the Department of English the best poem or group of poems. The award was first made in 1957.

The Seymour Adelman Book Collector's Award is given each year to a student for a prize-winning collection on any subject, single author, or group of authors, and may include manuscripts and graphics. (1980)

The Seymour Adelman Poetry Award was established by Daniel and Joanna Semel Rose, Class of 1952, to provide an award in honor of Seymour Adelman. The award is designed to stimulate further interest in poetry at Bryn Mawr. Any member of the Bryn Mawr community—undergraduate or graduate student, staff or faculty member—is eligible for consideration. The grant may be awarded to fund research in the history or analysis of a poet or poem, to encourage the study of poetry in interdisciplinary contexts, to support the writing of poetry, or to recognize a particularly important piece of poetic writing. (1985)

The Horace Alwyne Prize was established by the Friends of Music of Bryn Mawr College in honor of Horace Alwyne, Professor Emeritus of Music. The award is presented annually to the student who has contributed the most to the musical life of the College. (1970)

The Bain-Swiggett Poetry Prize was established by a gift of Mr. and Mrs.

Prizes and Academic Awards

Glen Levin Swiggett. This prize is to be awarded by a committee of the faculty on the basis of the work submitted. (1958)

The Berle Memorial Prize Fund in German Literature was established by Lillian Berle Dare in memory of her parents, Adam and Katharina Berle. The income from the fund is awarded annually to an undergraduate for excellence in German literature. Preference is given to a senior who is majoring in German and who does not come from a German background. (1975)

The Bolton Prize was established by the Bolton Foundation as an award for students majoring in the Growth and Structure of Cities. (1985)

The Bryn Mawr European Fellowship has been awarded each year since the first class graduated in 1889. It is given for merit to a member of the graduating class, to be applied toward the expenses of one year's study at a foreign university.

The Commonwealth Africa Scholarship was established by a grant from the Thormcroft Fund Inc. at the request of Helen and Geoffrey de Freitas. The income from this fund is used to send, for at least six months, a graduate to a university or college in Commonwealth Africa or a former British colony in Africa, to teach or to study, with a view to contributing to mutual understanding and the furtherance of scholarship. In 1994, the description of the Scholarship was changed to include support for current undergraduates. (1965)

The Robert L. Conner Undergraduate Fellowship Fund was established to provide an undergraduate biology fellowship for summer independent research in memory of Professor of Biology Robert L. Conner. (1991)

The Hester Ann Corner Prize for distinction in literature was established in memory of Hester Ann Corner, Class of 1942, by gifts from her family, classmates, and friends. The award is made biannually to a junior or senior on the recommendation of a committee composed of the chairmen of the Departments of English and of Classical and Modern Foreign Languages. (1950)

The Katherine Fullerton Gerould Memorial Prize was founded by a gift from a group of alumnae, many of whom were students of Mrs. Gerould when she taught at Bryn Mawr from 1901 to 1910. The fund was increased by a bequest of one of her former students. It is awarded by a special committee to a student who shows evidence of creative ability in the fields of informal essay, short story, and longer narrative or verse. (1946)

The Elizabeth Duane Gillespie Fund for Scholarships in American History was founded by a gift from the National Society of Colonial Dames of America in the Commonwealth of Pennsylvania in memory of Elizabeth Duane Gillespie. Two prizes are awarded annually on nomination by the Department of History, one to a member of the sophomore or junior class for work of distinction in American history, a second to a student doing advanced work in American history for an essay written in connection with that work. The income from this fund has been supplemented since 1955 by annual gifts from the Society. (1903)

The Maria L. Eastman Brooke Hall Memorial Scholarship was founded in memory of Maria L. Eastman, principal of Brooke Hall School for Girls, Media, Pennsylvania, by gifts from the alumnae and former pupils of the school. It is awarded annually to the member of the junior class with the highest general average and is held during the senior year. Transfer students who enter Bryn Mawr as members of the junior class are not eligible for this award. (1901)

The Charles S. Hinchman Memorial Scholarship was founded in the memory of the late Charles S. Hinchman of Philadelphia by a gift made by his family. It is awarded annually to a member of the junior class for work of special excellence in her major subjects and is held during the senior year. (1921)

The Sarah Stifler Jesup Fund was established in memory of Sarah Stifler Jesup, Class of 1956, by gifts from New York alumnae, as well as family and friends. The income is to be awarded annually to one or more undergraduate students to further a special interest, project, or career goal during term time or vacation. (1978)

The Pauline Jones Prize was established by friends, students, and colleagues of Pauline Jones, Class of 1935. The prize is awarded to the student writing the best essay in French, preferably on poetry. (1985)

The Anna Lerah Keys Memorial Prize was established by friends and relatives in memory of Ann Lerah Keys, Class of 1979. The prize is awarded to an undergraduate majoring in classical and Near Eastern archaeology. (1984)

The Sheelah Kilroy Memorial Scholarships in English were founded in memory of their daughter Sheelah by Dr. and Mrs. Phillip Kilroy. These prizes are awarded annually on the recommendation of the Department of English as follows: to a student for excellence of work in second-year or advanced courses in English, and to the student in the first-year course in English Composition who writes the best essay during the year. (1919)

The Helen Taft Manning Essay Prize in History was established in honor of Helen Taft Manning, in the year of her retirement, by her class (1915). The income is to be awarded as the Department of History may determine. (1957)

The Nadia Anne Mirel Memorial Fund was established by the family and friends of Nadia Anne Mirel, Class of 1985. The fund supports the research or travel of students undertaking imaginative projects in the following areas: children's educational television; children's educational film and video; and photography. (1986)

The Martha Barber Montgomery Fund was established by Martha Barber Montgomery '49, her family, and friends to enable students majoring in the humanities, with preference to those studying philosophy and/or history, to undertake special projects. The Fund may be used, for example, to support student research and travel needs, or an internship in a non-profit or research setting. (1993)

Prizes and Academic Awards

The Elisabeth Packard Art and Archaeology Internship Fund was established by Elisabeth Packard '29 to provide stipend and travel support to enable students majoring in History of Art or Classical and Near Eastern Archaeology to hold museum internships, conduct research, or participate in archaeological digs. (1993)

The Alexandra Peschka Prize was established in memory of Alexandra Peschka, Class of 1964, by gifts from her family and friends. The prize of \$100 is awarded annually to a member of the freshman or sophomore class and writer of the best piece of imaginative writing in prose. The award is made by a committee of the Department of English, which consults the terms stated in the deed of gift. (1969)

The Jeanne Quistgaard Memorial Prize was given by the Class of 1938 in memory of their classmate Jeanne Quistgaard. The income from this fund may be awarded annually to a student in economics. (1938)

The Barbara Rubin Award Fund was established by the Amicus Foundation in memory of Barbara Rubin, Class of 1947. The fund provides summer support for students undertaking internships in non-profit or research settings appropriate to their career goals, or study abroad. (1989)

The Gail Ann Schweiter Prize Fund was established in memory of Gail Ann Schweiter '79 by her family. The prize is to be awarded to a science or mathematics major in her junior or senior year who has shown excellence both in her major field and in musical performance. To be considered for the prize, a student must have participated in at least one public performance of classical music while at Bryn Mawr. (1993)

The Charlotte Angas Scott Prize in Mathematics is awarded annually to an undergraduate on the recommendation of the Department of Mathematics. It was established by an anonymous gift in memory of Charlotte Angas Scott, professor of mathematics and a member of the faculty of Bryn Mawr College from 1885 to 1924. (1960)

The Elizabeth S. Shippen Scholarships were founded by two bequests under the will of Elizabeth S. Shippen of Philadelphia. Three prizes are awarded annually, one to the member of the senior class who receives the Bryn Mawr European Fellowship and two to members of the junior class, as follows: 1. The Shippen Scholarship in Science to a student whose major subject is biology, chemistry, geology, or physics; 2. The Shippen Scholarship in Foreign Languages to a student whose major subject is French, German, Greek, Italian, Latin, Russian, or Spanish. To be eligible for either of these two scholarships a student must have completed at least one semester of the second-year course in her major subject. Neither may be held by the winner of the Charles S. Hinchman Memorial Scholarship. Work in elementary courses will not be considered in awarding the scholarship in foreign languages; 3. The Shippen Scholarship for Foreign Study. See the *Bryn Mawr European Fellowship* above. (1915)

The Gertrude Slaughter Fellowship was established by a bequest of Gertrude Taylor Slaughter, Class of 1893. The fellowship is to be

awarded to a member of the graduating class for excellence in scholarship to be used for a year's study in the United States or abroad. (1964)

The W.W. Smith Scholarship Prize is made possible by a grant from the W.W. Smith Charitable Trust for financial aid support for past W.W. Smith Scholarship recipients who have shown academic excellence and are beginning their senior year. (1986)

The Lillie Seip Snyder Prize Fund was established by Frances L. Snyder and Nellie Fink, daughters of Lillie Seip Snyder. The prize is awarded annually to a graduate or undergraduate major in musicology. (1976)

The Ariadne Solter Fund was established in memory of Ariadne Solter, Class of 1991, by gifts from family and friends to provide an annual award to a Bryn Mawr or Haverford undergraduate working on a project concerning development in a third world country. (1989)

The Katherine Stains Prize Fund in Classical Literature was established by Katherine Stains, in memory of her parents Arthur and Katheryn Stains, and in honor of two excellent twentieth-century scholars of classical literature, Richmond Lattimore and Moses Hadas. The income from the fund is to be awarded annually as a prize to an undergraduate student for excellence in Greek literature, either in the original or in translation. (1969)

The M. Carey Thomas Essay Prize is awarded annually to a member of the senior class for distinction in writing. The award is made by the Department of English for either creative or critical writing. It was established in memory of Miss Thomas by her niece, Millicent Carey McIntosh, Class of 1920. (1943)

The Emma Osborn Thompson Prize in Geology was established by a bequest of Emma Osborn Thompson, Class of 1904. From the income of the bequest a prize is to be awarded from time to time to a student in geology. (1963)

The Hope Wearn Troxell Memorial Prize is awarded annually by the alumnae of Southern California to a student from Alumnae District IX, with first consideration to a student from Southern California. The prize is awarded in recognition of the student's responsible contribution to the life of the College community. (1973)

The Laura van Straaten Fund was established by Thomas van Straaten and his daughter Laura van Straaten, Class of 1990, in honor of Laura's graduation. The fund supports a summer internship for a student working to advance the causes of civil rights, women's rights, or reproductive rights. (1990)

The Carlos Nathaniel Vicens and María Teresa Joglar de Vicens Fund was established by Aurora Vicens '85 and María Teresa Vicens '84 in memory of their parents. The fund provides undergraduates with summer research support in the sciences. (1995)

The Anne Kirschbaum Winkelman Prize, established by the children of Anne Kirschbaum Winkelman, Class of 1948, is awarded annually to the

Scholarships for Medical Study

student judged to have submitted the most outstanding short story. (1987)

The Esther Walker Award was founded by a bequest from William John Walker in memory of his sister, Esther Walker, Class of 1910. It may be given annually to a member of the senior class who, in the judgment of the faculty, has displayed the greatest proficiency in the study of living conditions of northern African Americans. (1940)

The Anna Pell Wheeler Prize in Mathematics is awarded annually to an undergraduate on the recommendation of the Department of Mathematics. It was established by an anonymous gift in honor of Anna Pell Wheeler, professor emeritus of mathematics and a member of the faculty of Bryn Mawr College from 1918 until her death in 1966. (1960)

SCHOLARSHIPS FOR MEDICAL STUDY

The following scholarships may be awarded to seniors intending to study medicine, after their acceptance by a medical school, or to graduates of Bryn Mawr intending or continuing to pursue a medical education. Applications for the scholarship should be made to the premedical adviser before March 15 preceding the academic year in which the scholarship is to be held. Applications for renewal of scholarships must be accompanied by letters of recommendation from instructors in the medical school.

The Linda B. Lange Fund was founded by bequest of \$30,000 under the will of Linda B. Lange, Class of 1903. The income from this fund provides the Anna Howard Shaw Scholarship in Medicine and Public Health, awarded on recommendation of the president and faculty to a member of the graduating class or a graduate of the College for the pursuit, during an uninterrupted succession of years, of studies leading to the degrees of M.D. and Doctor of Public Health. The award may be continued until the degrees are obtained. (1948)

The Hannah E. Longshore Memorial Medical Scholarship was founded by Mrs. Rudolf Blankenburg in memory of her mother by a gift of \$10,000. The scholarship is awarded by a committee of the faculty to a student who has been accepted by a medical school. It may be renewed for each year of medical study. (1921)

The Jane V. Myers Medical Scholarship Fund of \$10,000 was established by Mrs. Rudolf Blankenburg in memory of her aunt. The scholarship is awarded by a committee of the faculty to a student who has been accepted by a medical school. It may be renewed for each year of medical study. (1921)

The Harriet Judd Sartain Memorial Scholarship Fund was founded by bequest of \$21,033 under the will of Paul J. Sartain. The income from this fund is to establish a scholarship which is awarded to a member of the graduating class who, in the judgment of the faculty, needs and is deserving of assistance for the study of medicine. This scholarship may be continued for the duration of her medical course. (1948)

LOAN FUNDS

Bryn Mawr College administers two kinds of loan programs. The first consists of five funds established through the generosity of alumnae and friends of the College. Applications for loans must be accompanied by the Free Application for Federal Student Aid (FAFSA).

The Students' Loan Fund of the Alumnae Association of Bryn Mawr College was founded by the Class of 1890 to provide emergency funds for undergraduate and graduate students. No more than \$1,000 may be borrowed by a student in any one year; the total for four years must not exceed \$3,000. Students who wish loans may obtain the application from the Alumnae Association or the Financial Aid Office. All students are eligible for loans from this fund, whether or not they are already receiving financial aid from the College. However, the application must be approved by the director of financial aid, a dean or faculty adviser, and the executive director of the Alumnae Association. A letter of recommendation from the dean or the faculty adviser should be submitted with the application. Money is not usually lent to freshmen or to students in their first semester of graduate work.

While the student is in college, no interest is charged, and she may reduce the principal of the loan if she so desires. After the student leaves Bryn Mawr the interest rate is pegged to the prime rate. The entire principal must be repaid within five years of the time the student leaves the College at the rate of twenty percent each year. Principal payments can be deferred if the student enrolls in graduate or professional school, although interest payments must be made.

The Gerard and Mary Hill Swope Loan Fund was established in 1945 under the following conditions:

a. Non-scholarship students and graduate students are also eligible to apply for loans from this fund.

b. Interest begins to accrue as of the date of graduation and the rate is set by the College. The entire principal must be repaid within five years of the time the student leaves college at a rate of twenty percent each year.

c. Loans are awarded by the Scholarship Committees of the Undergraduate College, the Graduate School of Arts and Sciences, and the Graduate School of Social Work and Social Research.

The Clareth Fund was established in 1971 by a bequest to the College from the estate of Ethel S. Weil. The income is only to be used for students "specializing in economics or business."

The Alfred and Mary Douty Loan Fund, an expendable loan fund for student loans, was established in 1976 by an initial donation of \$5,000 from the trustees of the Alfred and Mary Douty Foundation. The fund was augmented by a pledge of \$22,500 from the foundation, paid through the years 1977 to 1983. Loans from this fund may be made to graduate or undergraduate students. Repayment of the principal of the loan begins nine months after graduation, withdrawal, or cessation of at least half-time study. The entire principal must be repaid within five years from the date the first payment becomes due at the rate of twenty percent each year plus interest of seven percent per annum on the unpaid balance.

Loan Funds

Federal Loan Funds (Detailed information is available in the Financial Aid Office.)

The Perkins Loan Program is a loan administered by the College from allocated federal funds. Eligibility for a Perkins Loan is determined through a federal needs test. The five-percent interest rate and repayment of the loan begin six months after the student has completed her education.

Students who, upon graduation, teach on a full-time basis in public or private non-profit elementary or secondary schools in an economically depressed area as established by the Secretary of Education, or who work with handicapped children, are allowed cancellation of their debts at the rate of fifteen percent per year for the first and second years, twenty percent per year for the third and fourth years, and thirty percent for the fifth year, or total cancellation over five years.

The Stafford Student Loan Program is a government subsidized program which was instituted to enable students to meet educational expenses. Application is made through students' home banks. An undergraduate student may borrow up to \$5,500 per year depending upon her year in college and her financial eligibility. Repayment begins six months after the student is no longer enrolled at least half-time at an accredited institution. The interest is currently 6.22%. The government will pay this interest until the repayment period begins, if the student meets financial eligibility requirements.

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INDEX

A

- A.B./M.A. programs; *See* Three-Two Plan in Engineering and Applied Science; Three-Two Program in City and Regional Planning
- Absence from classes; *See* Attendance
- Academic and residential facilities, 35
- Academic awards; *See* Prizes and academic awards
- Academic honor code, 41
- Academic honors, 55
- Academic regulations, 57
- Academic schedule, 6
- Academic support services, 42
- Achievement tests; *See* Entrance tests
- Administrators, 21
- Admission, 25, 26
 - alumnae/i, 31
- Advanced placement and credit, 28
- Advising, 41
- Africana Studies, 225
- Alumnae Representatives, 284
- American Council of Teachers of Russian, 68
- Anthropological collections and laboratories, 37
- Anthropology, 72
- Applications for financial aid, 35
- Applying to the College; *See* Admission
- Archaeology, Classical and Near Eastern, 90
- Archaeology collections, 37
- Art, History of, 157
- Arts facilities; *See* Facilities for the Arts
- Arts Program, 228
- Asian American studies, 108
- Astronomy, 77
- Attendance, 60
- Auditing, 58
- Avignon, summer program, 67

B

- Bachelor of Arts degree, requirements for, 52
- Bern Schwartz Gymnasium, 40
- Biology, 79
- Board of Trustees, 7
- Business school, preparation for, 66

C

- Campus employment, 34
- Canaday Library; *See* Mariam Coffin Canaday Library
- Career development, 42
- Campus Center; *See* Marie Salant Neuberger Centennial Campus Center
- Centro de Estudios Hispánicos en Madrid, 68
- Changes of grades, 62
- Chemistry, 86
- Child care, 46
- Chinese, 107
- Cities, Growth and Structure of, 145
- City and Regional Planning, Three-Two Program in, 66
- Classical and Near Eastern Archaeology, 90
- Classical Languages, 94
- Classical Studies, 95
- Collections; *See* Libraries
- College Entrance Examination Board; *See* Entrance tests
- Combined A.B. and M.A. degree, 29
- Comparative Literature, 97
- Computer Science, 234
- Computing center; *See* Eugenia Chase Guild Computing Center
- Conduct of courses, 60
- Continuing enrollment fee, 33
- Cooperation with neighboring institutions, 59
- Correspondence, 5
- Counseling service, 45
- Course numbers, key to, 71
- Creative writing, 228

Credit for work done elsewhere, 63
 Credit/No Credit Option, 57
 Curricular opportunities, 65
 Curriculum, 52

D

Dance, 230
 Deadlines for written work, 60; *See also* Senior deadlines
 Deferred entrance, 27
 Deferred examinations, 60
 Departmental and interdepartmental majors, 72
 Departure from the College, 64; *See also* Withdrawal: from the College
 Deposit, 34
 Designation of directory information, 47
 Distinctions, 63
 Divisional requirements, 54

E

Early admission, 27
 Early Decision Plan, 26
 financial aid, 35
 East Asian Studies, 100
 Economics, 108; *See also* International Economic Relations
 Education, 239
 Emeriti, 9
 English, 114
 English composition requirement, 52
 Entrance requirements; *See* Admission
 Entrance tests, 27
 Environmental Sciences Concentration, 242
 Equality of Opportunity, 48
 Eugenia Chase Guild Computing Center, 38
 Examinations, 60
 Excavations; *See* Classical and Near Eastern Archaeology
 Exclusion from the College, 55, 62; *See also* Withdrawal: from the College
 Extensions for written work, 60

F

Facilities for the Arts, 39
 Faculty and staff, 9
 FAFSA; *See* Free Application for Federal Student Aid (FAFSA)
 Fall early decision, 26
 Family Educational Rights and Privacy Act, 47
 Federal College Work-Study Program, 34
 Fees, 32
 Feminist and Gender Studies, 245
 Fields of Concentration and Additional Programs, 225
 Financial aid and scholarships, 34; *See also* Applications for financial aid
 Fine Arts, 124, 231
 Five-year joint programs; *See* Three-Two Plan in Engineering and Applied Science; Three-Two Program in City and Regional Planning
 Florence, summer program, 68
 Foreign language requirement, 53
 Foreign students, 29
 Free Application for Federal Student Aid (FAFSA), 34, 35
 French and French Studies, 128; *See also* Institut d'Etudes Françaises d'Avignon

G

General Studies, 247
 Geographical distribution, 49
 Geology, 135
 German and German Studies, 139
 Grade changes, 62
 Grading system, 62
 Graduation rates, 48
 Greek, 143
 Growth and Structure of Cities, 145
 Gymnasium; *See* Bern Schwartz Gymnasium

H

Half-credit courses, 58
 Hall advisers, 41

Handicapped, access for; *See*
Rehabilitation Act of 1973,
Section 504
Haverford College, cooperation
with, 59, 65
Health services, 45
Hispanic and Hispanic-American
Studies, 249
History, 150
History of Art, 157
History, of the College, 22
Honor code, 41
Honors, degree with; *See*
Distinctions

I

Incompletes for written work, 60
Independent major, 55
Independent study, 58
Institut d'Etudes Françaises
d'Avignon, 67, 130
Insurance, 44
International Economic Relations,
250
Interviews, 27
Italian, 163

J

Japanese, 108
Joint programs, five year; *See*
Three-Two Plan in Engineering
and Applied Science; Three-
Two Program in City and
Regional Planning
Junior year abroad, 69

K

Katharine E. McBride Scholars
Program, 30
Key to course numbers, 71
Key to phrases describing
requirements, 71

L

Laboratories, 37
Language examinations, 53
Language houses, 44
Language Learning Center, 39
Language requirement, 53
Latin, 166

Law school, preparation for, 66
Leave of absence, 33, 44, 64
Liberal Studies, seminars in, 115
Libraries, 35
Limited enrollment courses, 58
Literature courses, 116; *See also*
Comparative Literature
Loan funds, 282

M

Madrid, summer program, 68
Major requirements, 55, 62
Mariam Coffin Canaday Library,
35
Mathematics, 168
Mathematics requirement; *See*
Quantitative requirement
McBride Program; *See* Katharine E.
McBride Scholars Program
Medical insurance, 45; *See also*
Insurance
Medical leave of absence,
45, 64; *See also* Leave of
absence
Medical requirements, 45
Medical school, consortial
programs, 31
Medical school, preparation for, 65
Minor, academic, 56
Moscow, Russian program in, 68
Music, 173, 232

N

Neural and Behavioral Sciences,
251
Non-resident students, 44

O

Officers of the Alumnae
Association, 284
Officers of the Corporation, 8

P

Payments; *See* Schedule of
payments
Peace and Conflict Studies, 253
Performance
dance, 231
music, 232
theater, 234

Perkins Loan Program, 283
 Personal property, insuring; *See*
 Insurance
 Phebe Anna Thorne School, 46
 Philosophy, 177
 Physical Education and Athletics,
 254
 Physical Education requirement,
 56
 Physics, 183
 Placement tests, advanced; *See*
 Advanced placement and credit
 Political Science, 189
 Post-Baccalaureate Premedical
 Program, 30
 Premedical preparation, 65; *See*
 also Post-Baccalaureate
 Premedical Program
 Preparation for law school, 66
 Presidents of the College; *See*
 History, of the College
 Privacy act; *See* Family
 Educational Rights and Privacy
 Act
 Prizes and academic awards, 276
 Psychology, 195
 Psychology Certification
 Program; *See* School
 Psychology Certification
 Program

Q

Quantitative requirement, 53
 Quizzes, 60

R

Readmission, 29
 Refunds, 32
 Registration, 57
 Rehabilitation Act of 1973,
 Section 504, 48
 Religion, 201
 Required withdrawal; *See*
 Withdrawal: from the
 College; *See also* Exclusion
 from the College
 Requirements for the A.B. degree,
 52
 Requirements for the major; *See*
 Major requirements
 Reserve Officer Training Corps, 67
 Residence, 33, 43; *See also*
 Residence halls

Residence halls, 40
 coeducational, 44
 Residency requirement, 56
 Romance Languages, 212
 ROTC; *See* Reserve Officer
 Training Corps
 Russian, 214

S

Schedule of payments, 33
 Scholarship funds and prizes, 256
 Scholarships for international
 students, 275
 Scholarships for medical study,
 281
 Scholastic Aptitude Tests; *See*
 Entrance tests
 School Psychology Certification
 Program, 31
 Science Center; *See* Laboratories
 Secondary school studies, 25
 Security Information Act, 47
 Self-Government Association, 24
 Senior deadlines, 61
 Social honor code, 41
 Social Science Data Laboratory
 and Library, 39
 Social seniors, 61
 Sociology, 216
 Spanish, 218; *See also* Centro de
 Estudios Hispánicos en
 Madrid; Hispanic and Hispanic
 American Studies
 Special Academic Programs
 admission, 30
 continuing education, 30
 Katharine E. McBride Scholars
 Program, 30
 Post-Baccalaureate Premedical
 Program, 30, 65
 St. Petersburg, Russian program
 in, 68
 Staff and faculty, 9
 Stafford Student Loan Program,
 283
 Student life, 41
 Student organizations, 24
 Student Right to Know Act, 47, 48
 Study abroad, 69
 Summer courses, 31, 64
 Summer programs in languages, 67
 Swarthmore College, cooperation
 with, 59, 65

T

Teaching certification, 65
The Americans with Disabilities
 Act of 1990, 48
Theater, 232
Three-Two Plan in Engineering
 and Applied Science, 66
Three-Two Program in City and
 Regional Planning, 66
Transfer students, 28
Tripod, 35
Trustees, the Board of, 7
Tuition, 32
 alumnae/i, 31

U

Undergraduate Council, 62
University of Pennsylvania,
 cooperation with, 59, 65

V

Vacations, residence during; *See*
 Residence
Villanova University, cooperation
 with, 59, 65

W

Winter early decision, 26
Withdrawal
 from courses, 58
 from the College, 64
Work-study programs, 34

Y

Year-long courses, 58, 71



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